

HANG BY THIS WIRE

Hang this
up

Gump

NET PRICE BOOK

Nº 90

1872...1928

VIBROX
DRAVER
JUBY



LE PAGE
BAR-NUN
EDTBAUER

Ideal FEED MILL MACHINERY

B.F. GUMP CO.

Established 1872

431-437 South Clinton Street
CHICAGO, U.S.A.

ORIGINATORS AND SOLE OWNERS OF THE GENUINE "LePAGE" PATENT CORRUGATION

A New Reference Book

Thousands of Feed Plants, flour mills, and others have for years eagerly awaited the arrival of GUMP'S Catalogs, and this, our 90th issue, is offered with the thought of supplying helpful data, as well as to show the most modern and up-to-date machinery and equipment.

Do You Want Another Copy? Perhaps your Superintendent, Head Miller, Assistant Miller, Foreman, some member of your organization, or even a friend, would like a copy. One word from you will bring it, all without cost or obligation.

The Counsel and Expert Advice of engineers familiar with your milling problems are available to you through our Engineering Department. Giving helpful information has been an outstanding feature of the GUMP organization for over fifty years. Calls and correspondence are invited at all times.

All prices in this catalog are net, no further discount, and (owing to constant market changes) are subject to change without notice. Firm orders placed with us and accepted cannot be countermanded, except by mutual consent and upon terms which will indemnify us against loss. All orders are accepted subject to delay by accidents, strikes or other causes beyond our control.

QUICK INDEX

For Complete Index See Pages 126, 127 and 128

	Page		Page
Aspirators	44	Juby Drive	48
Bar Nun Grinders	32 to 35	LePage Patent Corrugation	26
Belting, all kinds	76 to 79	Magnetic Separators	46, 47
Bolting Cloth	70 to 72	Master Drives	3
Bug Chaser Brushes	118	Mash Feed Finisher	31
Chain Belting	89	Metal, perforated	73
Conveyors, spiral	110 to 114	Molasses Mixer, Ideal	19
Corn Crackers	28, 29	Niagara Cleaning Machinery	49
Corrugating	26, 66, 67	Pulleys	82 to 88
Crushers	55, 56	Rolls, chilled	68
Draver Feeders	1 to 18	Scales	41, 42, 43, 62, 63, 64, 65
Edtbauer Weighers	62 to 65	Screens and Sifters, Ideal	36, 37
Elevators, wood and metal	100 to 107	Shafting	92
Feed Mixers	19, 21, 50, 51, 74, 75	Transmission Appliances	92 to 99
Hammer Mills	32 to 35	Vibro Packer	38, 39

IN BUYING FROM GUMP YOU PLACE YOUR FAITH
IN ESTABLISHED BRANDS AND
INTELLIGENT SERVICE

GUMP'S NEW GENERAL CATALOG No. 90

1928 - 1929

FOR FIFTY-FIVE YEARS
we have specialized in the origina-
tion of Feed Mill and Flour Mill Equip-
ment, and each Gump Product is brought
forth with a firm desire to give the industries
an article of increased usefulness, higher worth,
and greater service. This is attested by our de-
velopment of the *Genuine LePage Patent Corrugation—*
Draver Feeders—Vi Brox Packer—Bar Nun Grinder—Juby
Drive—and many others, all of which will be found listed
within the pages of this, our 90th complete General Catalog

W. M. WILLIAMS, Pres. and Treas.

PAUL NAEHER, Vice-Pres.

A. J. HAZLE, Jr., Secy.

B. F. GUMP CO.

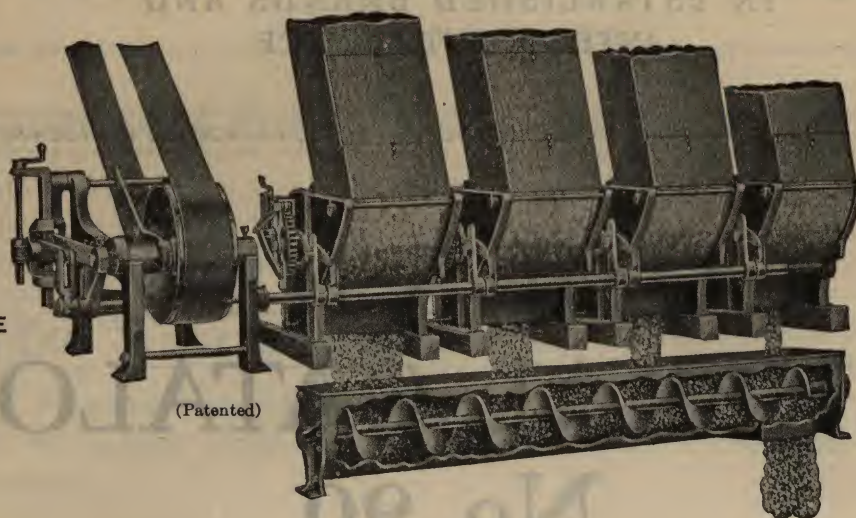
Established 1872

Main Office and Works: CHICAGO, U. S. A.

DRAVER MASTER DRIVE

Trade Mark

CAPACITY
INCREASED OR
DECREASED
WHILE
RUNNING,
WITHOUT
CHANGING THE
PROPORTIONS



(Patented)

CONTINUOUS
FEEDING ON
AN ACCURATE
BASIS
ASSURES A
UNIFORM
PRODUCT

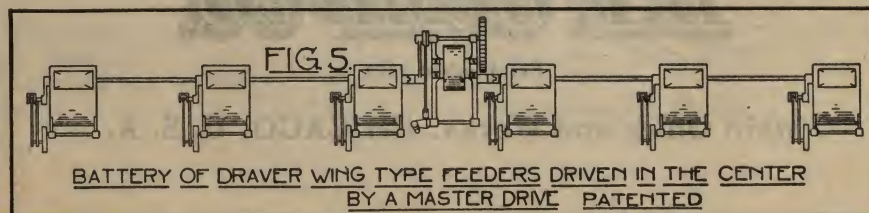
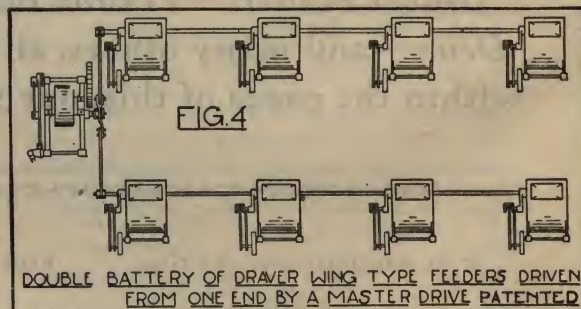
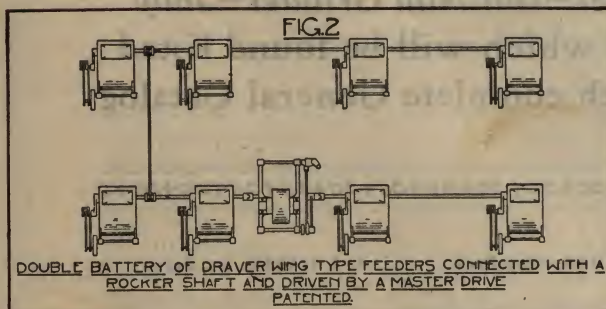
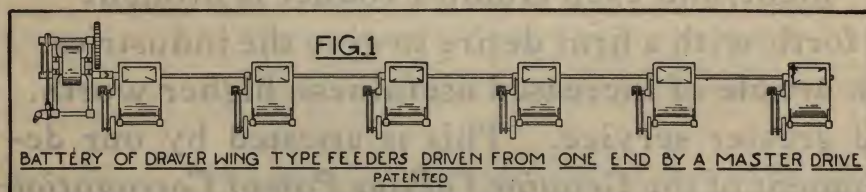
The modern and up-to-date method of **Continuous Mixing** or blending of various materials has practically replaced the old system of **Batch Mixing**.

Required capacity and economy in manufacture have brought about this important change in the production of present-day mixed feeds and in the blending of flour, wheat, chemicals, etc.

Draver Proportional Feeders, driven by the **Draver One-Belt Master Drive**, are exceedingly accurate, which, taken

into consideration with economical capacity production, has, in recent years, revolutionized the method of feed manufacture.

The **Draver Master Drive** is especially designed for driving Draver Feeders in batteries, with one belt, operated as a unit. This is accomplished through the Master Drive delivering its power by a Rocker Arm or forward and backward motion which, transmitted to our Improved Double-Acting Ratchet mechanism, gives a continuous rotating motion to the Feeders in the battery.

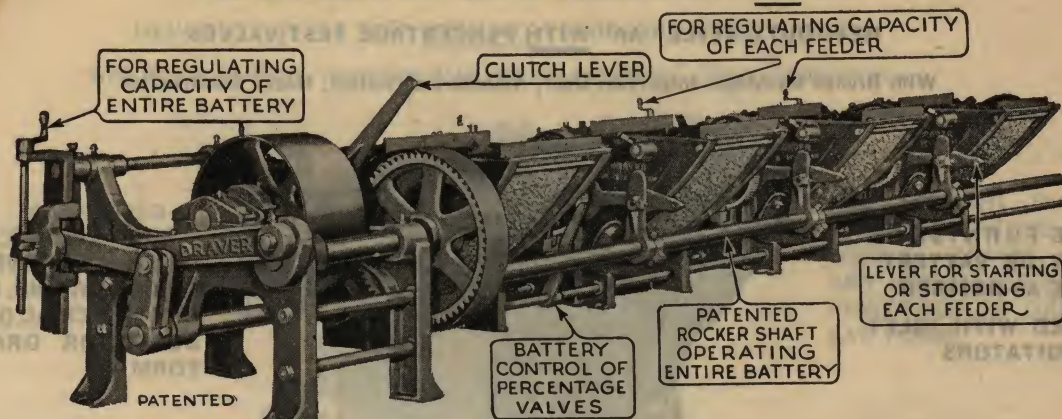


Diagrams showing possible installations of Draver One Belt Master Drives in connection with Draver Wing-Type Feeders.

DRAVER MASTER DRIVE

Trade Mark

FOR DRIVING A BATTERY OF FEEDERS WITH ONE BELT



Style "Q" Master Drive Operating a Battery of Feeders

The "Draver" Master Drive is designed only for operating "Draver" Feeders in batteries or gangs. With the Master Drive, from two to twenty-five Feeders can be operated with only **One Belt**, this driving the Master Drive which in turn imparts the power to each individual Feeder through the patented Rocker Shaft. This does away with the numerous belts or chains necessary with other methods of driving Feeders, making the construction of hoppers and spouts above the Feeders much easier, and doing away with the possible chance of inaccuracy due to belt slippage.

The clutch lever on the Master Drive is used to stop or start the entire battery of Feeders simultaneously, or if desired, any individual Feeder or Feeders may be "cut-out" by the lever on each machine. The capacity of the entire battery may be increased or decreased by the single adjustment on the Master Drive, thus altering the capacity of the entire battery to suit the mixer or automatic scale, or each of the Feeders may be adjusted individually to change the formula of the product being made.

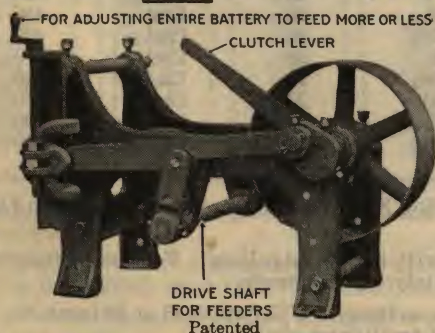
The Master Drive may be placed in the most convenient position as shown on Page 2.

PRICES—WEIGHTS

Style "N" Master Drive—Without Speed Reducing Gears (Bronze-bushed)	Net Price Each	Size Pulley Inches	Approx. Weight Crated, Lbs.
No. 60-A For Driving Style "B" Feeders without Percentage Valves.....	\$100.00	16x6	280
No. 60-B For Driving Style "B" Feeders with Percentage Valves.....	100.00	16x6	290
No. 60-C For Driving Style "A" and "AA" Feeders with Percentage Valves.....	100.00	16x6	300
Recommended for driving Batteries of moderate size.			
No. 61-A For Driving Style "A" and "AA" Feeders without Percentage Valves...	135.00	16x6	380
No. 61-B For Driving Style "B" Feeders with Percentage Valves.....	135.00	18x7	390
No. 61-C For Driving Style "A" and "AA" Feeders with Percentage Valves.....	135.00	18x8	400
The machines listed above are designed for heavy duty. Recommended Speed of Drive Pulley 40-45 R.P.M.			
Style "Q" Master Drive—With 3 to 1 Speed Reducing Gears (Bronze-bushed)	Net Price Each	Size Pulley Inches	Approx. Shipping Weight, Lbs.
No. 62-A For Driving Style "B" Feeders without Percentage Valves.....	\$125.00	12x5	295
No. 62-B For Driving Style "B" Feeders with Percentage Valves.....	125.00	12x5	305
No. 62-C For Driving Style "A" and "AA" Feeders with Percentage Valves.....	125.00	12x5	320
Recommended for driving Batteries of moderate size.			
No. 63-A For Driving Style "A" and "AA" Feeders without Percentage Valves...	165.00	14x7	475
No. 63-B For Driving Style "B" Feeders with Percentage Valves.....	165.00	14x7	480
No. 63-C For Driving Style "A" and "AA" Feeders with Percentage Valves.....	165.00	14x7	490
The machines listed above are designed for heavy duty. Recommended Speed of Drive Pulley 120-135 R.P.M.			

STYLE "N"

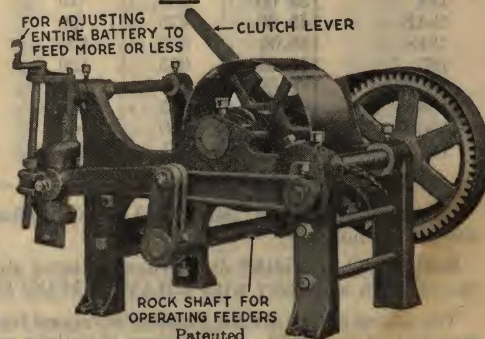
Master Drive Without Speed Reducing Gears



Pulleys
Larger
than
Sizes
Listed
Cannot
Be Used

STYLE "Q"

Master Drive with 3 to 1 Speed Reducing Gears



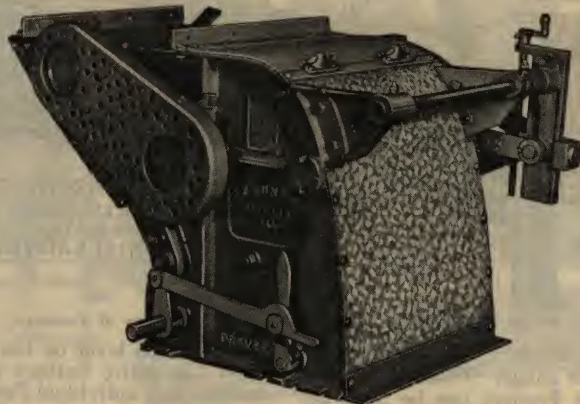
Note—The machines in each group listed above viz.: Nos. 60-61-62 and 63, are identical, except in height, which varies according to the height of feeders to be driven. $1\frac{1}{8}$ " Rocker Shafting Extra at Lowest Market Price

"DRAVER" WING TYPE FEEDERS

HEVI-DUTY STYLE "AA" WITH PERCENTAGE TEST VALVES

With Bronze Bushings, Inspection Door, Alemite Lubrication, Heavy Construction

CAN BE FURNISHED
PULLEY OR BATTERY
DRIVE AS DESIRED
EQUIPPED WITH INLET
AGITATORS



FOR FEEDING FLOUR,
BRAN, ALL GROUND AND
WHOLE GRAINS, OR ANY
DRY MATERIAL OF POW-
DERED OR GRANULAR
FORM

Showing Feeder for Battery Drive (See Page 5 for Pulley Drive)

Continuous and accurate feeding is assured because of the patented spiral position in which the segments of the feeding-cylinder are mounted on the shaft. This feeding-cylinder may be built in any one of several different ways, one of which is perfectly suited for handling the material you wish to feed.

Draver Wing-Type Feeders are extremely light-running because the weight of the material in the bin never rests directly on the feeding cylinder, but is carried by the front part of the body of the Feeder, thus requiring a minimum of power.

Inlet and outlet are wide open at all times, the capacity being regulated by the speed at which the cylinder is driven rather than by changing the size of the inlet or outlet. Thus, sticks, chaff, etc. will not affect their accuracy.

Improved double acting ratchet mechanism operates the wings at an adjustable, positive and uniform speed. This type of drive is more dependable than a drive relying on friction, as slippage and inaccuracy are very liable to occur where friction is relied upon.

Feeders ordered with percentage test valves are equipped with a special valve to make the taking of tests easier. With this equipment the discharge of the Feeder can be diverted from the conveyor or mixer into a measure or scale so that a check can be made on the quantity being fed, and the Feeder adjusted to feed the correct amount. When Feeders are operated in a battery (or gang) using the patented DRAVER MASTER DRIVE, test-valves on all Feeders can be united and operated simultaneously.

When ordering be sure to state what materials the Feeders are to handle, and also advise the approximate maximum and minimum capacities wanted. This information will enable us to ship the correct Feeders for your requirements.

PRICES—DIMENSIONS—WEIGHTS

Number	Net Prices F. O. B. Chicago	MAXIMUM CAPACITY		Size of Inlet Inches	OVERALL DIMENSIONS			Size of Standard Pulley (40 to 45 R.P.M.)	Approx. Weight (Crated) Lbs.
		Bushels Per Hour (Grain)	Barrels Per Hour (Flour)		Depth, Inches	Width, Inches (See Note No. 2)	Height to Inlet Inches		
180	\$110.00	(See Note No. 1)		14x 7½	39½	25½	20	12x3	315
181	95.00	150	30	14x 7½	39½	25½	20	12x3	315
182	110.00	250	45	14x11	39½	29	20	12x3	360
183	125.00	325	60	14x14½	39½	32½	20	12x3	390
184	135.00	400	75	14x18	39½	36	20	12x3	420
184B	145.00	475	90	14x21½	39½	39	20	12x4	450
184S	155.00	550	105	14x25	39½	42¾	20	12x4	480
185	165.00	625	120	14x28½	39½	46	20	12x4	510
185B	175.00	700	135	14x32	39½	49¾	20	12x4	540
186	185.00	775	150	14x35½	39½	53½	20	12x4	570
186B	195.00	850	165	14x39	39½	57	20	12x4	600
187	205.00	925	180	14x42½	39½	60½	20	12x4	630

Note 1.—Feeder No. 180 is GALVANIZED and is especially made for feeding SALT, calcium, etc., at from 175 to 3,000 pounds per hour.

Note 2.—The "width" dimensions as listed above are for Feeders equipped with individual pulleys. Feeders equipped for operation in a battery with DRAVER MASTER DRIVE will be approximately 4½" narrower.

The above prices are for Feeders equipped for battery drive or with pulleys as listed. Will furnish 23 or 30 tooth No. 55 sprockets if preferred. Other sizes of pulleys or sprockets can be furnished at small extra charge.

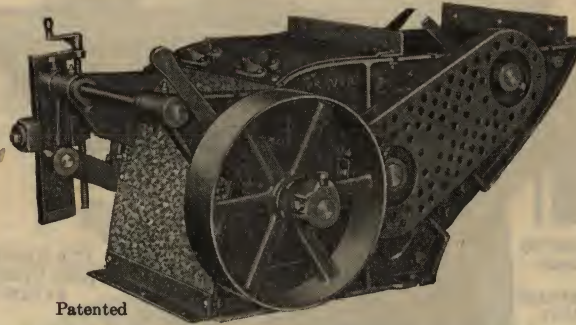
See page 3 for Master Drive.

"DRAVER" WING TYPE FEEDERS

HEVI-DUTY STYLE "AA" WITHOUT PERCENTAGE TEST VALVES

With Bronze Bushings, Inspection Door, Alemite Lubrication, Heavy Construction

CAN BE FURNISHED
PULLEY OR BATTERY
DRIVE, AS DESIRED.
EQUIPPED WITH INLET
AGITATORS.



Patented

Showing Feeder with Pulley Drive (See Page 4 for Battery Drive)

FOR FEEDING FLOUR,
BRAN, ALL GROUND AND
WHOLE GRAINS, OR
ANY DRY MATERIAL OF
POWDERED OR GRANU-
LAR FORM.



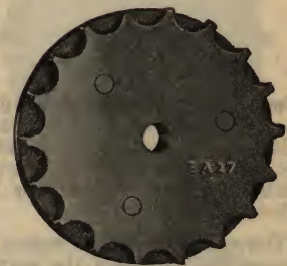
"W2" WING
(For Wheat, Corn, Etc.)



"EA5" WING
(For Flour, Etc.)



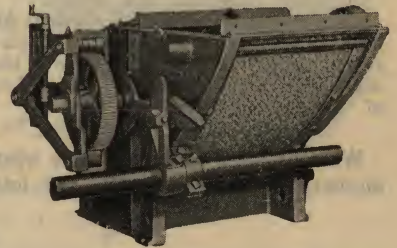
"EA23" WING
(Semi-Restricted)



"EA27" WING
(Full-Restricted)

The above cut illustrates the various types of wings that can be furnished in DRAVER Feeders, the selection of which is governed by the material to be fed, and the approximate minimum and maximum capacities that will be handled.

When ordering be sure to state what materials the feeders are to handle, and also advise the approximate maximum and minimum capacities wanted. This information will enable us to ship the correct feeders for your requirements.



PRICES—DIMENSIONS—WEIGHTS

Number	Net Prices F. O. B. Chicago	MAXIMUM CAPACITY		Size of Inlet Inches	OVERALL DIMENSIONS			Size of Standard Pulley (40-45 R.P.M.)	Approx. Weight (Crated) Lbs.
		Bushels Per Hour (Grain)	Barrels Per Hour (Flour)		Depth Inches	Width Inches (See Note No. 2)	Height to Inlet Inches		
170	\$104.00	(See Note No. 1)		14x 7½	39½	25½	14½	12x3	295
171	89.00	150	30	14x 7½	39½	25½	14½	12x3	295
172	103.00	250	45	14x11	39½	29	14½	12x3	325
173	117.00	325	60	14x14½	39½	32½	14½	12x3	355
174	125.00	400	75	14x18	39½	36	14½	12x3	385
174B	135.00	475	90	14x21½	39½	39	14½	12x4	415
174S	143.00	550	105	14x25	39½	42¾	14½	12x4	445
175	152.00	625	120	14x28½	39½	46	14½	12x4	475
175B	162.00	700	135	14x32	39½	49¾	14½	12x4	505
176	170.00	775	150	14x35½	39½	53½	14½	12x4	535
176B	180.00	850	165	14x39	39½	57	14½	12x4	565
177	188.00	925	180	14x42½	39½	60½	14½	12x4	595

Note 1.—Feeder No. 170 is GALVANIZED and is especially made for feeding SALT, CALCIUM, etc., at from 175 to 3,000 pounds per hour.

Note 2.—The "width" dimensions as listed above are for Feeders equipped with individual pulleys. Feeders equipped for operation in a battery with DRAVER MASTER DRIVE will be approximately 4½" narrower.

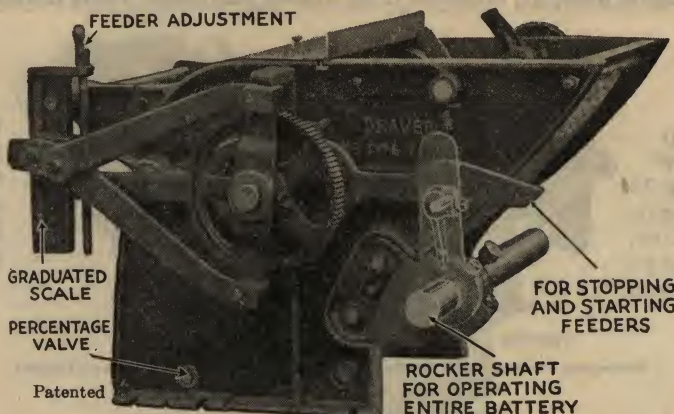
The above prices are for Feeders equipped for battery drive or with pulleys as listed. Will furnish 23 or 30 tooth No. 55 sprockets if preferred. Other sizes of pulleys or sprockets can be furnished at small extra charge.

See Page 3 for Master Drive.

"DRAVER" WING TYPE FEEDERS

IMPROVED STYLE "A" WITH PERCENTAGE TEST VALVES

CAN BE FURNISHED
PULLEY OR BATTERY
DRIVE, AS DESIRED.
EQUIPPED WITH IN-
LET AGITATORS.



FOR FEEDING FLOUR,
BRAN, ALL GROUND
AND WHOLE GRAINS,
OR ANY DRY MATE-
RIAL OF POWDERED
OR GRANULAR FORM.

Showing Feeder with Battery Drive (See Page 7 for Pulley Drive)

Continuous and Accurate Feeding is assured because of the patented spiral position in which the segments of the feeding-cylinder are mounted on the shaft. This feeding cylinder may be built in any one of several different ways, one of which is perfectly suited for handling the material you wish to feed.

"Draver" Wing-Type Feeders are extremely light-running because the weight of the material in the bin never rests directly on the feeding-cylinder, but is carried by the front part of the body of the Feeder, thus requiring a minimum of power.

Inlet and Outlet are Wide Open at All Times, the capacity being regulated by the speed at which the cylinder is driven rather than by changing the size of the inlet or outlet openings. Thus, sticks, strings, etc., will not affect the accuracy of "Draver" Feeders.

Improved Double Acting Ratchet Mechanism operates the wings or feeding cylinder at an adjustable and uniform speed. This type of feeder-drive is the most positive due to the fact that the pawls fit into the teeth of the ratchet-wheel, and do not rely on friction shoes, thereby eliminating all danger of inaccuracy due to slippage which is bound to occur where friction is depended upon.

Feeders Ordered with Percentage Test Valve are equipped with a special valve to make the taking of tests easier. With this equipment the discharge of the Feeder can be diverted from the conveyor or mixer into a measure or scale so that the exact quantity being fed can be ascertained, and the capacity of the Feeder decreased or increased to suit the immediate requirements. When Feeders are operated in a battery (or gang) using the patented "Draver" Master Drive, the percentage valves of all Feeders can be united so that all of the Feeders may be tested simultaneously.

When ordering be sure to state what materials the Feeders are to handle, and also advise the approximate maximum and minimum capacities wanted. This information will enable us to ship the correct feeders for your requirements.

PRICES—DIMENSIONS—WEIGHTS

Number	Net Prices F. O. B. Chicago	MAXIMUM CAPACITY		Size of Inlet Inches	OVERALL DIMENSIONS			Size of Standard Pulley (40-45 R.P.M.)	Approx. Weight (Crated) Pounds
		Bushels Per Hour (Grain)	Barrels Per Hour (Flour)		Depth Inches	Width Inches (See Note No. 2)	Height to Inlet Inches		
80	\$85.00	(See Note No. 1)		14x 7½	39½	23½	20	12x3	290
81B	70.00	150	30	14x 7½	39½	23½	20	12x3	290
82B	80.00	250	45	14x11	39½	27	20	12x3	320
83B	95.00	325	60	14x14½	39½	30½	20	12x3	340
84	105.00	400	75	14x18	39½	34	20	12x3	370
84B	115.00	475	90	14x21½	39½	37½	20	12x4	400
84S	125.00	550	105	14x25	39½	41	20	12x4	430
85	135.00	625	120	14x28½	39½	44½	20	12x4	475
85B	145.00	700	135	14x32	39½	48	20	12x4	500
86	155.00	775	150	14x35½	39½	51½	20	12x4	530
86B	165.00	850	165	14x39	39½	55	20	12x4	560
87	175.00	925	180	14x42½	39½	58	20	12x4	580

Note 1—Feeder No. 80 is Galvanized, and is especially made for feeding Salt at from 175 to 3,000 pounds per hour.

Note 2—The "width" dimensions as listed above are for Feeders equipped with individual pulleys. Feeders equipped for operation in a battery with "Draver" Master Drive will be approximately 4½ inches narrower.

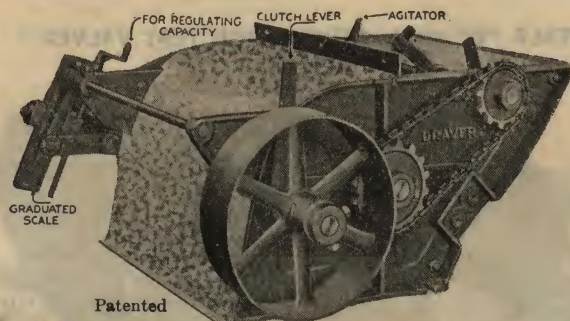
The above prices are for Feeders equipped for battery drive or with pulleys as listed. Will furnish 23 or 30 tooth No. 55 sprockets if preferred. Other sizes of pulleys or sprockets can be furnished at small extra charge.

Note—Hinged Inspection Doors can be furnished, if desired, at an additional cost of 10 per cent of the price of the Feeder.

See Page 3 for Master Drive

"DRAVER" WING TYPE FEEDERS**IMPROVED STYLE "A" WITHOUT PERCENTAGE TEST VALVES**

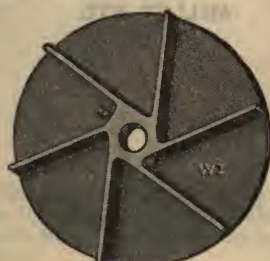
CAN BE FURNISHED
PULLEY OR BATTERY
DRIVE, AS DESIRED.
EQUIPPED WITH INLET
AGITATORS.



Patented

Showing Feeder with Pulley Drive (See Page 6 for Battery Drive)

FOR FEEDING FLOUR,
BRAN, ALL GROUND AND
WHOLE GRAINS, OR
ANY DRY MATERIAL OF
POWDERED OR GRANU-
LAR FORM.



"W2" WING
(For Wheat, Corn, Etc.)



"EA5" WING
(For Flour, Etc.)



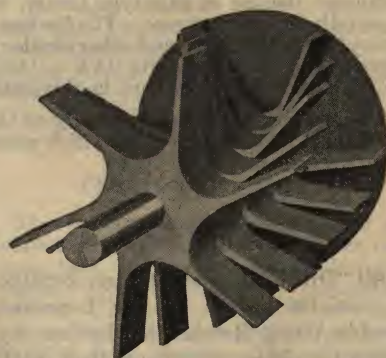
"EA23" WING
(Semi-Restricted)



"EA27" WING
(Full-Restricted)

The above cut illustrates the various types of wings that can be furnished in DRAVER Feeders, the selection of which is governed by the material to be fed, and the approximate minimum and maximum capacities that will be handled.

When ordering be sure to state what materials the feeders are to handle, and also advise the approximate maximum and minimum capacities wanted. This information will enable us to ship the correct feeders for your requirements.

**PRICES—DIMENSIONS—WEIGHTS**

Number	Net Prices (F. O. B. Chicago)	MAXIMUM CAPACITY		Size of Inlet Inches	OVERALL DIMENSIONS			Size of Standard Pulley (40-45 R.P.M.)	Approx. Weight (Crated) Pounds
		Bushels Per Hour (Grain)	Barrels Per Hour (Flour)		Depth Inches	Width inches (See Note No. 2)	Height to Inlet Inches		
70	\$ 79.00	(See Note No. 1)		14x 7½	39½	23½	14½	12x3	280
71B	64.00	150	30	14x 7½	39½	23½	14½	12x3	280
72B	73.00	250	45	14x11	39½	27	14½	12x3	295
73B	87.00	325	60	14x14½	39½	30½	14½	12x3	325
74	95.00	400	75	14x18	39½	34	14½	12x3	355
74B	105.00	475	90	14x21½	39½	37½	14½	12x4	385
74S	113.00	550	105	14x25	39½	41	14½	12x4	415
75	122.00	625	120	14x28½	39½	44½	14½	12x4	445
75B	132.00	700	135	14x32	39½	48	14½	12x4	475
76	140.00	775	150	14x35½	39½	51½	14½	12x4	505
76B	150.00	850	165	14x39	39½	55	14½	12x4	535
77	158.00	925	180	14x42½	39½	58½	14½	12x4	565

Note 1.—Feeder No. 70 is GALVANIZED and is especially made for feeding SALT, CALCIUM, etc., at from 175 to 3,000 pounds per hour.

Note 2.—The "width" dimensions as listed above are for Feeders equipped with individual pulleys. Feeders equipped for operation in a battery with DRAVER MASTER DRIVE will be approximately 4½" narrower.

The above prices are for Feeders equipped for battery drive or with pulleys as listed. Will furnish 23 or 30 tooth No. 55 sprockets if preferred. Other sizes of pulleys or sprockets can be furnished at small extra charge.

Note.—Hinged Inspection Doors can be furnished, if desired, at an additional cost of 10% of the price of the Feeder.

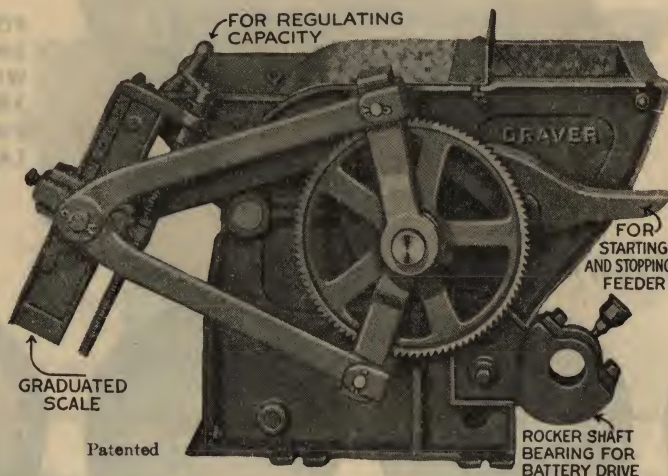
See Page 3 for Master Drive.

"DRAVER" GRAIN BLENDING FEEDERS

STYLE "B" WITH PERCENTAGE TEST VALVES

CAN BE FURNISHED
PULLEY OR BATTERY
DRIVE AS DESIRED.

NOT EQUIPPED WITH
INLET AGITATORS.



Showing Feeder with Battery Drive (Pulley Drive Illustrated on Page 9)

FOR FEEDING ONLY
SUCH FREE FLOWING
MATERIALS AS
WHOLE OR CRACKED
CORN, WHEAT, PEAS,
MILLET, ETC.

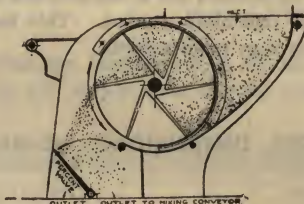
For accurate and uniform feeding of whole or cracked grains, cereals, and other materials of like nature, we recommend the use of this type feeder, which was designed especially for this purpose. For feeding powdered or finely ground materials, flour and other similar products we recommend the selection of style "AA", "A", or "J" DRAVER FEEDERS listed elsewhere in this catalog.

The feeding wings are set spirally on the shaft the same as in style "A," forming pockets which causes the stock to flow in an even stream at all times.

Each feeder has a percentage test valve and when in a battery, driven by the "Master" Drive all the percentage test valves can be opened or closed collectively, in one operation by a lever provided for that purpose, or individually by throwing percentage lever on each feeder.

In taking a percentage test, the valves are thrown over for a few seconds so the stock from each machine will run out instead of into the conveyor. These samples are then weighed separately so the exact percentage can be figured.

All "DRAVER" Feeders are operated at variable speeds by our Improved Double-Acting Ratchet Mechanism, by which the closest adjustment from maximum to minimum capacity can be made while feeders are in operation.



Sectional View Showing Arrangement of Wings and Location of Percentage Test Valve

Chaff, straws, strings and similar material will not interfere with the operation of these Feeders, as inlet and outlet openings are wide open at all times.

Pulley equipped with clutch for starting and stopping.

PRICES—DIMENSIONS—WEIGHT

Number	Net Prices F. O. B. Chicago	Maximum Capacity Bushels Per Hour (Grain)	Size of Inlet Inches	OVERALL DIMENSIONS			Size of Standard Pulley (40-45 R.P.M.)	Approx. Weight (Crated) Pounds
				Depth Inches	Width Inches (See Note No. 1)	Height to Inlet Inches		
51	\$50.00	125	5½x 7¾	26¾	23¼	14¾	12x3	180
52	60.00	200	5½x12	26¾	27¾	14¾	12x3	195
53	70.00	275	5½x16	26¾	31½	14¾	12x3	210
54	80.00	350	5½x20¼	26¾	35¾	14¾	12x3	225

Note 1.—The "width" dimensions as listed above are for Feeders equipped with individual pulleys. Feeders equipped for operation in a battery with DRAVER MASTER DRIVE will be approximately 6" narrower.

The above prices are for Feeders equipped for battery drive or with pulleys as listed. Will furnish 23 or 30 tooth No. 55 sprockets if preferred. Other sizes of pulleys or sprockets can be furnished at small extra charge.

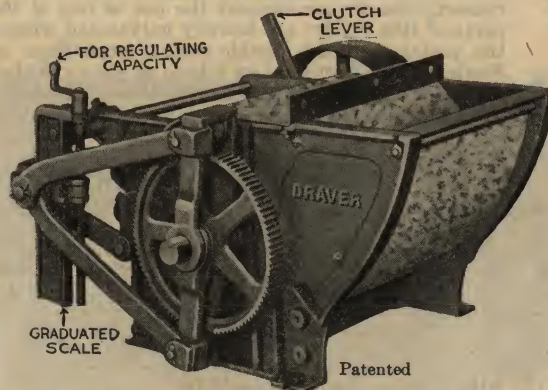
Note.—Hinged Inspection Doors can be furnished, if desired, at an additional cost of 10% of the price of the Feeder.

"DRAVER" GRAIN BLENDING FEEDERS

STYLE "B" WITHOUT PERCENTAGE TEST VALVES

CAN BE FURNISHED
PULLEY OR BATTERY
DRIVE AS DESIRED.

NOT EQUIPPED WITH
INLET AGITATORS.



Showing Feeder with Pulley Drive (See Page 8 for Battery Drive)

FOR FEEDING ONLY
SUCH FREE-FLOWING
MATERIALS AS
WHOLE OR CRACKED
CORN, WHEAT, PEAS,
MILLET, ETC.

The above illustration shows how the Pulley Drive Mechanism for driving feeders is applied to style "B" Poultry and Grain Blending Feeders, either with or without Percentage Valve.

The complete outfit equipped for driving in battery with Master Drive is illustrated on opposite page.

The feeders without percentage valve are the same in construction and operation as the feeders with percentage valve, except by eliminating the valve permits their being made three inches lower. They have the same capacity and will

handle the same materials with equal accuracy and uniformity.

Percentage Test Valves are not necessary when a single Feeder is used for regulating the flow of material into an elevator, grinder, attrition-mill, conveyor, or other machines, as the capacity of the Feeder can be regulated to suit the requirements of the other machine without trouble. However, when two or more Feeders are used for blending or mixing we recommend that Percentage Test Valves be used so that the capacities of each Feeder may be accurately checked without trouble.

SIMPLICITY

The amount to be fed is regulated by a simple adjustment on the mechanism. A few turns of a convenient handle will increase or decrease the capacity of the Feeder instantly, whether in operation or not. A locking-screw is used to maintain the position of adjustment and eliminate any chance of accidental change of capacity.



Interior View
Showing Wing-Pockets

FEEDING CYLINDER

The feeding-cylinder is composed of individual wings mounted spirally on the main shaft, and divided by circular partitions, forming accurate measuring pockets. The spiral position of the wings insures continuous and accurate flow of material from Feeder. The inlet and outlet openings are wide open at all times, thus eliminating chance of choking at those points. The capacity is governed by the adjustable variable speed of feeding cylinder.

PRICES—DIMENSIONS—WEIGHTS

Number	Net Prices F. O. B. Chicago	Maximum Capacity Bushels Per Hour (Grain)	Size of Inlet Inches	OVERALL DIMENSIONS			Size of Standard Pulley (40-45 R.P.M.)	Approx. Weight (Crated) Pounds
				Depth Inches	Width Inches (See Note No. 1)	Height to Inlet Inches		
41	\$40.00	125	5½x 7¾	26¾	23¼	11¾	12x3	165
42	50.00	200	5½x12	26¾	27¾	11¾	12x3	185
43	60.00	275	5½x16	26¾	31½	11¾	12x3	200
44	70.00	350	5½x20¼	26¾	35¾	11¾	12x3	215

Note 1.—The "width" dimensions as listed above for Feeders equipped with individual pulleys. Feeders equipped for operation in a battery with DRAVER MASTER DRIVE will be approximately 6" narrower.

The above prices are for Feeders equipped for battery drive or with pulleys as listed. Will furnish 23 or 30 tooth No. 55 sprockets if preferred. Other sizes of pulleys or sprockets can be furnished at small extra charge.

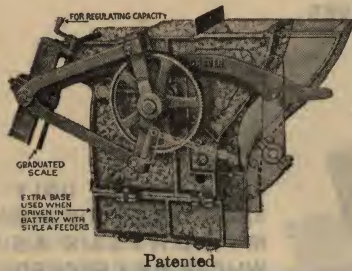
Note.—Hinged Inspection Doors can be furnished, if desired, at an additional cost of 10% of the price of the Feeder.

See page 3 for Master Drive

"DRAVER" SPECIAL SALT FEEDERS

FOR USE IN FEED PLANTS—GALVANIZED

STYLE "E" WITH PERCENTAGE TEST VALVE



Recommended for adding salt to soft feeds, and is sufficiently accurate for this work if the salt is dry and free from lumps. For adding salt to food-stuffs for human consumption we recommend the use of one of the Feeders shown on Page 15. All parts of this Feeder are heavily galvanized wherever the salt comes in contact with the metal, and the double-acting mechanism is substantially constructed. This Feeder can be furnished on a base as shown in the illustration for raising to the level of Style "AA" and "A" Feeders when operated in a battery with them, or can be furnished without the base and with 12x3" pulley for individual operation.

PRICES—DIMENSIONS—WEIGHTS

Size No.	Price Each	Capacity Per Minute	Height to Inlet Inches	Size of Inlet Inches	Width Overall Inches	Approximate Shipping Weight Crated, Lbs.
151	\$75.00	{Minimum 4 ozs. Maximum 10 lbs.}	19	5½x7¾	24	180



Note—If desired without base (but with 12x3" pulley), deduct \$5.00.

Note—Hinged Inspection Doors can be furnished, if desired, at an additional cost of \$7.50.

See Page 3 for Master Drive

"DRAVER" SPECIAL WING TYPE FEEDER

FOR SUNFLOWER SEEDS, OYSTER SHELLS, MILLET, ETC.

STYLE "F" WITH PERCENTAGE TEST VALVE

For accurately adding small percentages of sunflower seeds, oyster shell, kaffir, millet, and other similar free-flowing materials to various types of commercial feeds. This Feeder is identical to the Style "E" Feeder listed above, except that it is not galvanized. It can be furnished on a base to operate with Style "AA" and "A" Feeders, or without the base for operating with Style "B" Feeders, and if wanted for individual drive is furnished with 12x3" Pulley.



PRICES—DIMENSIONS—WEIGHTS

Size No.	Price Each	Capacity Per Minute	Height to Inlet Inches	Size Inlet Inlet Inches	Floor Space Inches	Approx. Ship. Wt. Crated, Lbs.
251	\$65.00	4 ozs. to 10 lbs.	15	5½x7½	12x20	180

Note—If desired without base, deduct \$5.00.

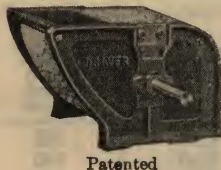
Note—Hinged Inspection Doors can be furnished, if desired, at additional cost of \$6.50.

See Page 3 for Master Drive

"DRAVER" TEMPERING BIN FEEDERS

STYLE "G" WING TYPE

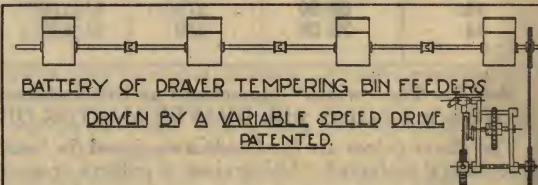
(Non-Adjustable)



Designed for feeding only free-flowing materials such as wheat, corn, oats, etc., and especially adapted for feeding wheat from tempering-bins in cases where the same quantity is required from all bins. If different percentages are required from the various bins use Style "AA," "A," or "B" Draver Feeders. The Style "G" Feeders are not equipped with adjusting mechanism for changing the capacity being fed, the suggested method of operation being to operate the entire battery at a variable speed by using a Draver Variable Speed Drive, as shown in the illustration. The Variable Speed Drive may be placed to drive the end of the battery as shown, or any other place in the line where more convenient.

PRICES—DIMENSIONS—WEIGHTS

Size No.	Price Each	Capacity Bu. Per Hour	Size Inlet Inches	Length Overall Inches	Height Overall Inches	Approx. Weight Crated, Lbs.
131	\$25.00	90	4 x 5½	17	10½	65
132	35.00	150	5½x5½	17	10½	75



Approximate speed 5 to 40 R.P.M.

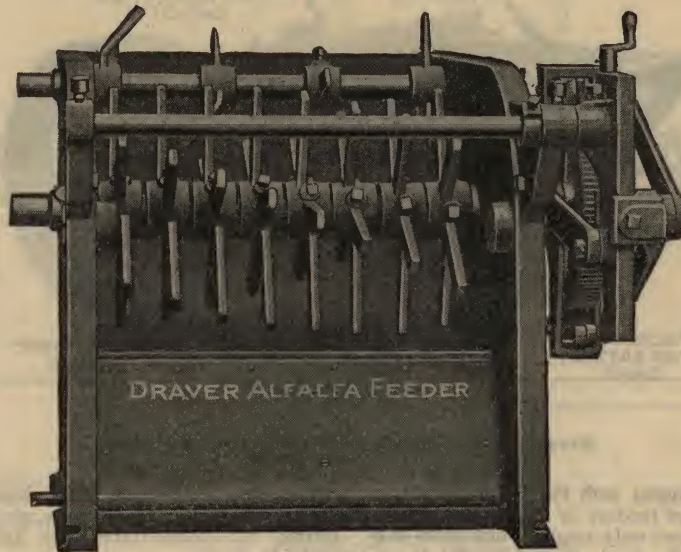
See Page 16 for Variable Speed Drives

"DRAVER" SPECIAL ALFALFA FEEDER

STYLE "D" COMPLETE WITH AGITATORS

(Furnished with or without Percentage Valve.)

May be driven singly with Pulley or Sprocket or in battery with other Wing-Type-Feeders using "Draver" One Belt Master Drive.



Patented
View Showing Interior Construction

When used in connection with the "Draver" Hopper-Bin-Agitators shown on page 17 eliminates to a great extent troublesome Chokeups.

The Special Alfalfa Feeder is built especially for the accurate feeding of alfalfa, cut hay and other material of a similar nature.

The exterior construction and operation is identical with the Style "A" Wing-Type Feeder, the difference being in the interior construction, illustration of which is shown above. Revolving fingers feed the material from the bin into the conveyor in a constant and unvarying stream.

Straws, string, and other similar material will not choke the machine as the inlet and outlet are wide open at all times regardless of the quantity of material being fed.

This feeder, as with other models, may be adjusted to feed

from maximum to minimum capacity while the machine is in operation. An extremely fine adjustment is made possible by the adjusting-arm and the double-acting ratchet and pawl mechanism.

Besides being extremely light-running, these feeders require comparatively little floor space. They are furnished with a clutch for starting and stopping, and agitators to aid the machine in feeding an even stream.

The Special Alfalfa Feeder is also built with and without percentage valves. In either case the machines are identical in size except that those without the percentage valves are built $5\frac{1}{2}$ inches lower.

PRICES—DIMENSIONS—WEIGHTS

With Percentage Valve		Without Percentage Valve		Max. Cap. Per Hour Bu.	Size of Inlet Inches	Depth Inches	Width Over All Inches	Height to Inlet		Size Pulley Inches	Approx. Ship. Weights Pounds	
Size No.	Price Each	No. Size	Price Each					With Pct. Valve Inches	Without Pct. Valve Inches		With Pct. V.	Without Pct. V.
123B	\$ 95.00	113B	\$ 87.00	325	14x14 $\frac{1}{2}$	39 $\frac{1}{2}$	30 $\frac{1}{2}$	20	14 $\frac{1}{2}$	12x3	310	300
124	105.00	114	95.00	400	14x18	39 $\frac{1}{2}$	34	20	14 $\frac{1}{2}$	12x3	350	325
124B	115.00	115B	105.00	475	14x21 $\frac{1}{2}$	39 $\frac{1}{2}$	37 $\frac{1}{2}$	20	14 $\frac{1}{2}$	12x4	350	325
124S	125.00	114S	113.00	550	14x25	39 $\frac{1}{2}$	41	20	14 $\frac{1}{2}$	12x4	400	370
125	135.00	115	122.00	625	14x28 $\frac{1}{2}$	39 $\frac{1}{2}$	44 $\frac{1}{2}$	20	14 $\frac{1}{2}$	12x4	450	420
125B	145.00	115B	132.00	700	14x32	39 $\frac{1}{2}$	48	20	14 $\frac{1}{2}$	12x4	500	475
126	155.00	116	140.00	775	15x35 $\frac{1}{2}$	39 $\frac{1}{2}$	51 $\frac{1}{2}$	20	14 $\frac{1}{2}$	12x4	540	500
126B	165.00	116B	150.00	850	15x39	39 $\frac{1}{2}$	55	20	14 $\frac{1}{2}$	12x4	575	550
127	175.00	117	158.00	925	15x42 $\frac{1}{2}$	39 $\frac{1}{2}$	58 $\frac{1}{2}$	20	14 $\frac{1}{2}$	12x4	600	575

Note.—The "width" dimensions as listed above are for Feeders equipped with individual pulleys. Feeders equipped for operation in a battery with DRAVER MASTER DRIVE will be approximately $4\frac{1}{2}$ " narrower.

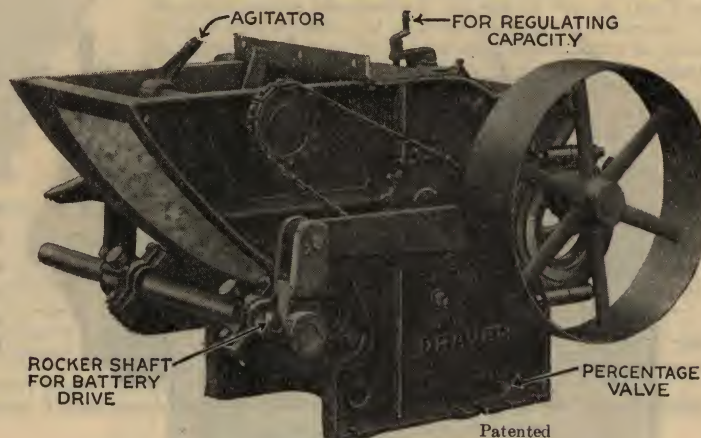
The above prices are for Feeders equipped for battery-drive, or with pulleys as listed. Will furnish 23 or 30 tooth No. 55 sprockets if preferred. Other sizes of pulleys or sprockets can be furnished at small extra charge.

Note.—Hinged Inspection Doors can be furnished, if desired, at an additional cost of 10% of the price of the Feeder.

See Page 3 for Master Drive

"DRAVER" ECCENTRIC DRIVES

FOR DRIVING A SMALL BATTERY OF FEEDERS WITH ONE BELT



Wing-Type Feeder Equipped with Eccentric Drive

One "Draver" Feeder equipped with the Eccentric Drive will operate a small battery of feeders as illustrated below. A battery driven in this manner only requires one drive belt to operate the whole line. The feeder to which the Drive is attached may be placed anywhere in the battery. The driven feeders are operated from this machine by means of the patented rocker-shaft principle.

This mechanism is not recommended for driving more than three large feeders, or six small size machines. For driving batteries larger than those named the "Master" Drive will be required. A complete description of this machine may be found on Page 3.

With the Eccentric Drive the machines in the battery may be stopped or started independently. To stop any machine in the battery it is merely necessary to lift the oscillating-arm until the locking device engages. To start the feeder again it is only necessary to lift the oscillating-arm slightly and place it upon the rocker-shaft connection.

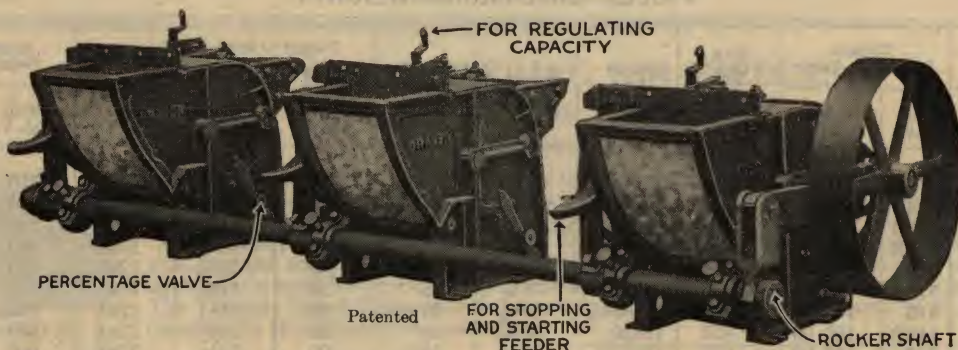
All of the feeders in the battery may be adjusted to feed more or less, independently of the other machines. This

drive does not permit the increasing or decreasing of the output of the battery by one operation as in the "Master" Drive, but necessitates the adjustment of each feeder individually.

The driving feeder is equipped with an extra rocker-shaft bearing. This insures absolute rigidity to the entire battery.



Eccentric Mechanism



Eccentric Drive Operating a Small Battery of Poultry Feeders

Eccentric Drive on Style "A" or "AA" Wing Type Feeder (16x4" Pulley) add to price of feeder.....\$25.00

Eccentric Drive on Style "B" Grain Blending Feeder (12x3" Pulley) add to price of feeder..... 25.00

Sprockets (23 or 30 tooth) No. 45 or No. 55 furnished without extra charge.

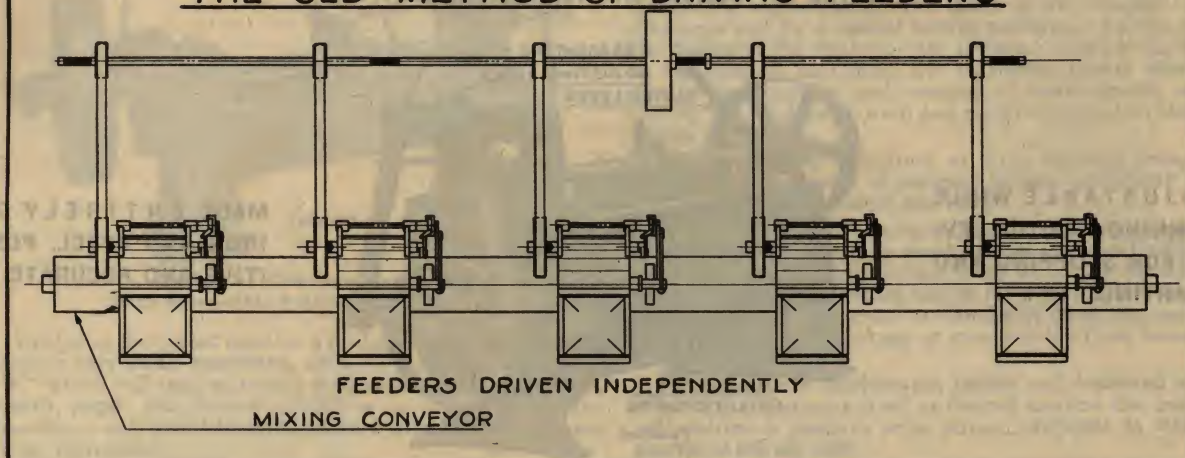
Other size pulleys and sprockets at additional cost. Speed 40 to 45 R.P.M.

Note—When ordering specify machine to which drive is to be attached, if more than one size is ordered.

1 1/2" Rocker-shafting extra at lowest market prices.

OLD AND NEW METHODS OF DRIVING A BATTERY OF FEEDERS

THE OLD METHOD OF DRIVING FEEDERS

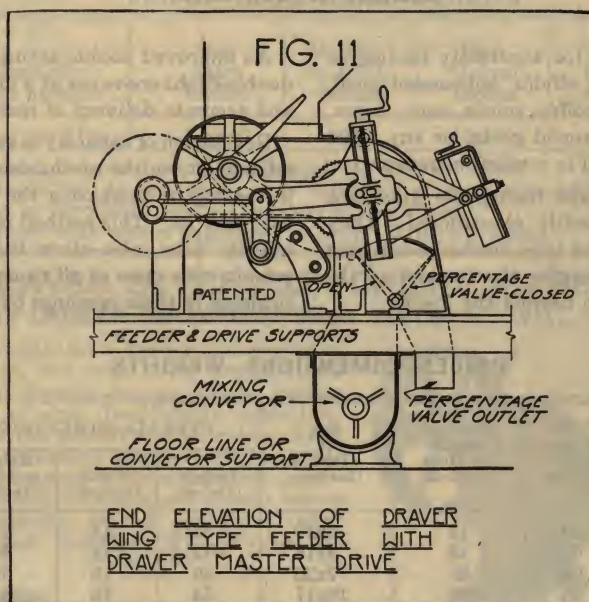


OLD WAY

Until recently, Feeders in a battery were driven individually from a line shaft. This method caused an uncertain variation in the speed, due to belt slippage, etc.

The percentage tests were inaccurate, and the feed not uniform, as each machine required individual adjustment.

The old way is not only inaccurate but expensive, requiring a line shaft, pulleys or sprockets, both on the feeders and line shaft; belt or chain for each, line shaft interfering with head-clearage, making it difficult and dangerous to get around feeders, belt slippage, wear and upkeep requiring almost constant attention.

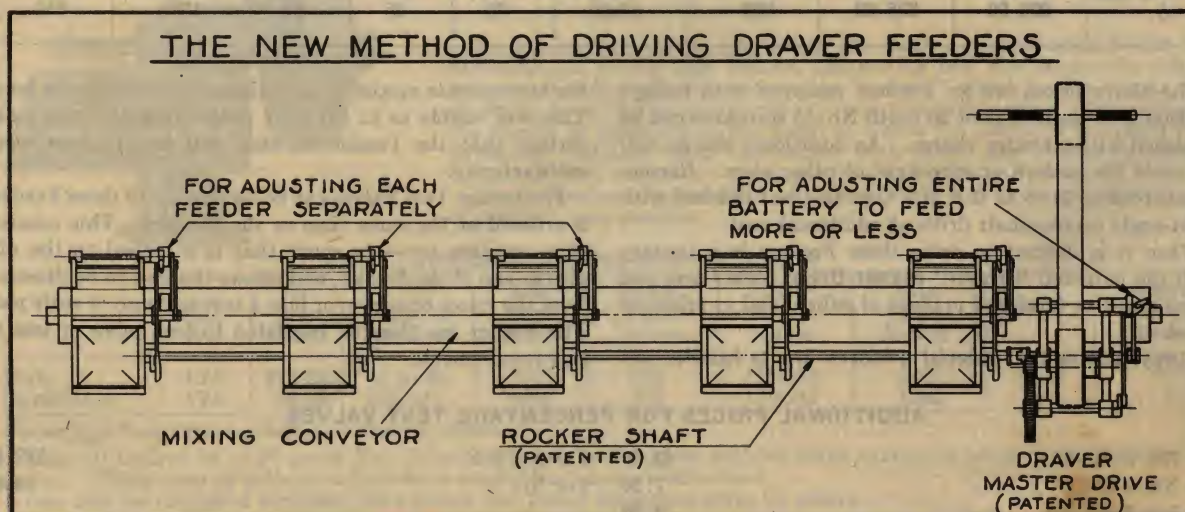


End View of Feeder with Drauer "Master" Drive

NEW WAY

Feeders driven in the latest, approved manner by means of the **Drauer One-Belt Master Drive** with patented rocker-shaft, assure a uniform flow and require minimum attention. After the entire battery is set at the desired percentages, the capacity may be increased or decreased by means of a single adjustment on the **Master Drive**, and may be stopped or started with one operation. Each feeder may also be stopped, started, or adjusted individually. When taking percentage tests, the entire battery may be tested collectively or individually. See page 3 for **Drauer Master Drive**.

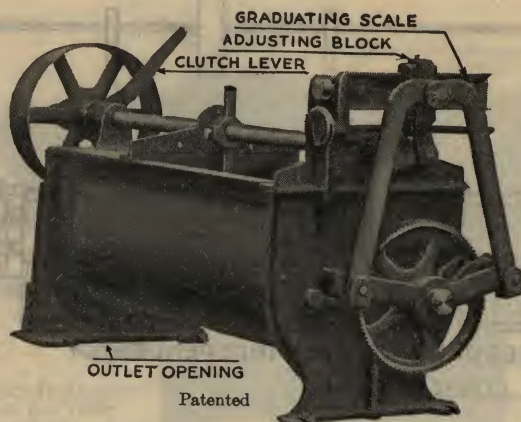
THE NEW METHOD OF DRIVING DRAUER FEEDERS



"DRAVER" DOUBLE ACTING FEEDERS

STYLE "J" CONVEYOR TYPE WITH AGITATORS

ADJUSTABLE WHILE
RUNNING. CLUTCH LEV-
ER FOR STOPPING AND
STARTING.



MADE ENTIRELY OF
IRON AND STEEL. POS-
ITIVE AND ACCURATE.

Equipped for Pulley Drive

A Feeder highly recommended for accurately feeding or blending such materials as flour, alfalfa, cottonseed meal, linseed meal, hulls, oats, cereals, coffee, spices, sugar, copra, pulp, coal, sand, whole grains, ground grain, or any other dry materials that can be handled in a spiral conveyor.

Constructed entirely of steel and high-grade gray iron castings, these machines are sturdily constructed. They are also equipped with an improved type discharge-end that eliminates the possibility of damaging the interior of the Feeder in the event of a choke-up beyond the Feeder.

An improved double-acting ratchet mechanism drives the double-flight conveyor at a uniform speed, assuring a regular and accurate delivery of material at all times.

Regulation of capacity is easily taken care of by one simple adjustment on the mechanism of the Feeder, this operation increasing or decreasing the speed of the conveyor, as the case may be. This method of regulation, besides being very quickly done, also allow the inlet and outlet openings to remain wide open at all times, and lessens the possibility of bridging of these openings by straw, sticks, strings, etc.

PRICES—DIMENSIONS—WEIGHTS

Feeder Number	Net Prices F. O. B. Chicago	Net Prices F. O. B. Chicago Galvanized	Maximum Capacity Per Hour (Bushels)	Size of Inlet (Inches)	OVERALL DIMENSIONS			Size of Standard Pulley (40-45 R.P.M.)	Approx. Weight (Crated) Lbs.
					Length (Inches)	Width (Inches)	Height to Inlet (Inches)		
0	\$30.00	\$36.00	10	4x10	38½	14	9½	12x2	130
1	35.00	42.00	15	4x18	42½	14	9½	12x2	145
2A	50.00	60.00	50	7x20	49	15	10¼	12x3	210
3	65.00	78.00	200	10x17	54	16	14	12x4	280
3A	75.00	90.00	250	10x27	60	16	14	12x4	300
4A	150.00	170.00	500	13x30	74	21	18	13x5	480
5	200.00	225.00	800	17x30	70	25	24	13x5	650

The above prices are for Feeders equipped with pulleys as listed. If desired 23 or 30 tooth No. 55 sprockets can be furnished without extra charge. An additional charge will be made for pulleys or sprockets of other sizes. Recommended speed 20 to 45 R.P.M. Can also be furnished with right-angle countershaft drive at additional cost.

When it is desired to drive these Feeders in a battery with the patented "Draver" Master Drive, rocker-arm and bearing will be furnished in place of pulley, and at prices as listed.

Always advise the material Feeders are to handle, and

the approximate maximum and minimum capacities per hour. This will enable us to fill your order correctly, and make certain that the Feeder we ship will handle your work satisfactorily.

Percentage Test Valves can be supplied with these Feeders if ordered at the same time as the Feeders. This consists of a cast-iron two-way spout that is attached to the discharge-end of the Feeder, and allows the flow to be diverted from the mixer or conveyor into a test-measure or scale pan. The Feeder can then be regulated to feed more or less to suit requirements.

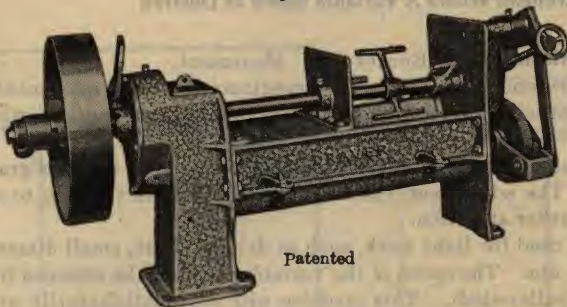
ADDITIONAL PRICES FOR PERCENTAGE TEST VALVES

For No. 0 and 1	\$7.00	For No. 4-A	\$12.50
For No. 2-A	7.50	For No. 5	18.00
For No. 3 and 3-A	9.50		

DRAVER STYLE "K" CHEMICAL FEEDER

FOR SALT, SODA, PHOSPHATE, STARCH, SUGAR, ETC.

Entirely New Method—Will Feed One-Half Ounce to Three Pounds Per Minute



Style "K" Chemical Feeder
With Removable Bottom for Cleaning

Realizing the urgent need for a feeder capable of accurately feeding very small quantities, we have designed the Model "K" which will feed materials such as salt, soda, phosphate, starch, sugar, etc., in such quantities as to be suitable for blending a very small amount to a very large quantity of some other ingredient.

In the Model "K" Feeder the stock is carried from the inlet opening approximately two-thirds of the distance to the discharge end by a special bronze conveyor. At this point the flights of the conveyor are reversed, causing the stock to rise through an oblong slot to another bronze conveyor, smaller in diameter and running at faster speed, which carries the stock in an even and positive stream to the discharge end.

All parts coming in contact with the material being fed, are constructed either of phosphor bronze, galvanized sheet iron, or heavily galvanized cast iron.

The upper conveyor, being driven by spur gears from the driving shaft, makes the machine self-contained and positive; the power being applied same as to the Model "J" Feeders. The entire bottom may be removed in a few seconds' time, enabling the operator to thoroughly clean the machine, preventing material caking or crystallizing from moisture, when not operating.

Furnished with machine-cut ratchet and tempered pawls. When the adjustment is set at desired amount the machine will deliver a positive even stream, accurate to within a quarter of one per cent.

PRICES—DIMENSIONS—WEIGHTS

Size No.	Net Price Each	Capacity Per Minute	Size Inlet Inches	Height to Inlet Inches	Size Overall Inches	Size Pulley Inches	R.P.M.	Approx. Weight Crated, Lbs.
160	\$75.00	½ oz. to 3 lbs.	6½x10	9½	16x38½	12x2	30 to 45	150

Percentage Test Valve furnished, if desired (increases height 4¾ inches), extra.....\$8.00

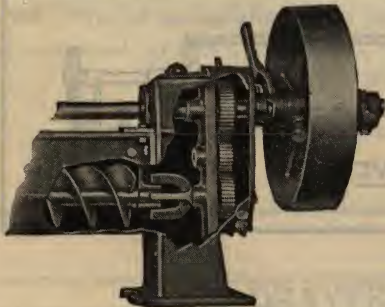
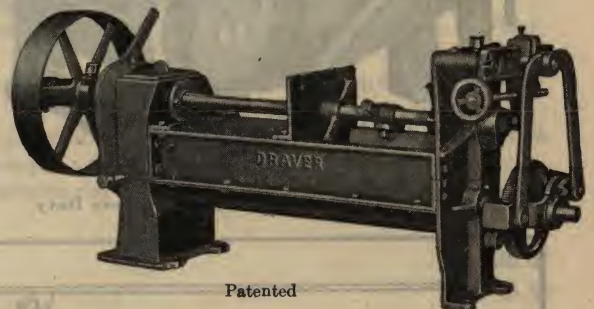
Note—If desired, 23 or 30 tooth No. 45 sprockets can be furnished without extra charge, in place of the standard 12x2" pulley. Other sizes of pulleys or sprockets can be furnished at extra cost.

Can also be furnished complete with motor and speed reducer—Write for prices.

DRAVER STYLE "JJ" CHEMICAL FEEDER

FOR LARGER CAPACITIES THAN STYLE "K" WILL HANDLE

In response to numerous requests for a Feeder as accurate as the Style "K" Draver Feeder, but with larger capacity, we have developed this type of Feeder for accurately feeding relatively small quantities of dry, free-flowing materials. Having a capacity range of from one-fifth to seventeen cubic feet per hour, this machine is especially adapted for adding salt or other chemicals to various types of commercial feeds, manufacturing animal remedies, putting lime in wheat or oats before scouring, blending dry chemicals, and in numerous other industries where accuracy and economy in operation are required.



The photograph at the left shows the patented distributing device in the discharge-end of this type Feeder, illustrating how the product is delivered from the double-flight conveyor to the "spinner" which in turn breaks up the discharge from the conveyor into an even, accurate stream. The capacity of the Feeder is regulated at the speed at which the conveyor is driven by the adjustable variable speed mechanism with which the Feeder is equipped. Thus, the inlet and outlet openings are wide open at all times.

The Galvanized Feeder will be shipped unless your order requests shipment of the plain iron machine.

PRICES—DIMENSIONS—WEIGHTS

	Size No.	Net Price Each	Capacity Per Hour	Size Inlet Inches	Height to Inlet Inches	Size Overall Inches	Size Pulley Inches	R.P.M.	Approx. Weight Crated, Lbs.
Plain.....	1JJ	\$75.00	¼ to 20	6x10	9½	13½x42	12x2	30 to	175
Galvanized....	1JJ	85.00	bushels	6x10	9½	13½x42	12x2	45	175

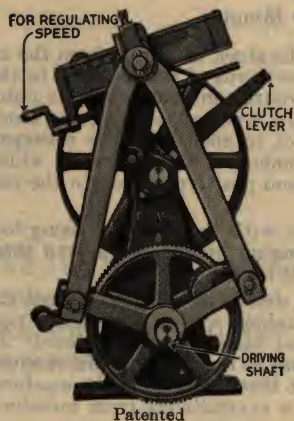
Percentage Test Valve furnished, if desired, extra.....\$8.00

Note—If desired 23 or 30 tooth No. 45 sprockets can be furnished without extra charge, in place of the standard 12x2" pulley. Other sizes of pulleys or sprockets can be furnished at extra cost.

Can also be furnished complete with motor and Speed Reducer—write for prices.

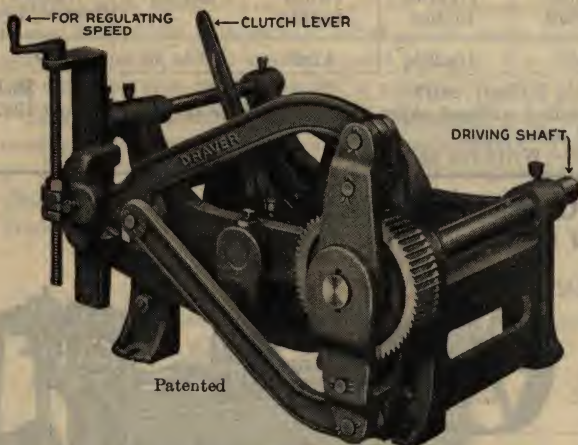
"DRAVER" VARIABLE SPEED DRIVES

For ROTARY Movement Where A Variable Speed Is Desired

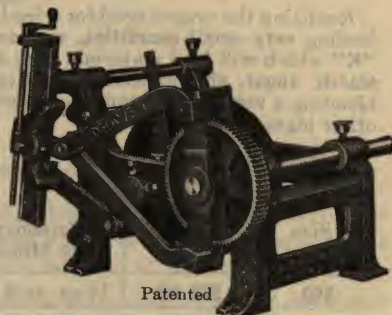


No. 1 Style "R" Vertical Type for Light Duty

The No. 4S Horizontal Type is built heavier than the No. 1R, and is recommended for all requirements up to 1 horsepower. The speed of the variable-shaft can be changed from $\frac{1}{2}$ to $\frac{1}{50}$ of the speed of the pulley-shaft. The six main bearings are bronzed-bushed, and the machine is substantially built throughout.



No. 6 Style "T" Horizontal Type for Heavy Duty

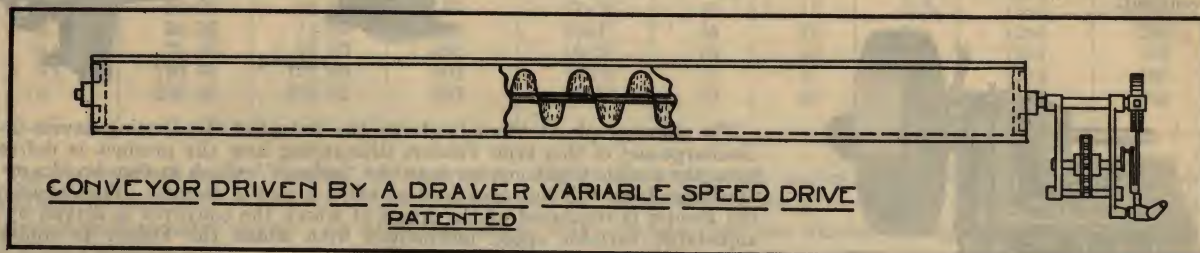


No. 4 Style "S" Horizontal Type for General Work

The No. 6T Horizontal Type is the heaviest drive we build, and is recommended for heavy duty requiring up to 2 horsepower, and is used for larger conveyors, drags, etc. It is very substantially built, having wide, bronzed-bushed bearings throughout, and extra heavy pawls, ratchet-wheel, etc. The speed of the variable-shaft can be changed from $\frac{1}{4}$ to $\frac{1}{60}$ of the speed of the pulley shaft.

All these Drives are self contained, easily installed and require little floor space. Drive pulleys are fitted with clutch for starting and stopping. Will furnish pulley or sprockets as desired at same price. Equipped with pulley as listed, unless otherwise ordered.

Adjustable while running



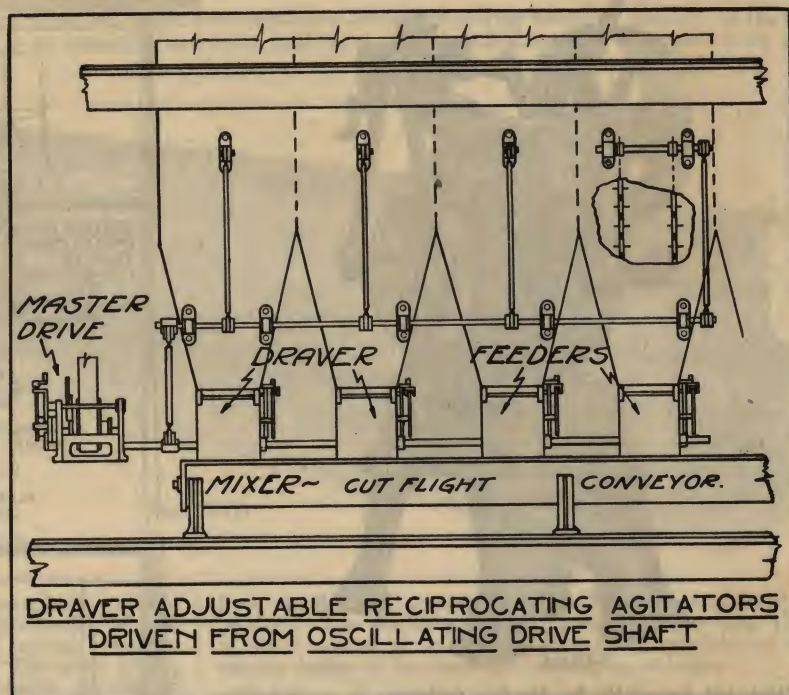
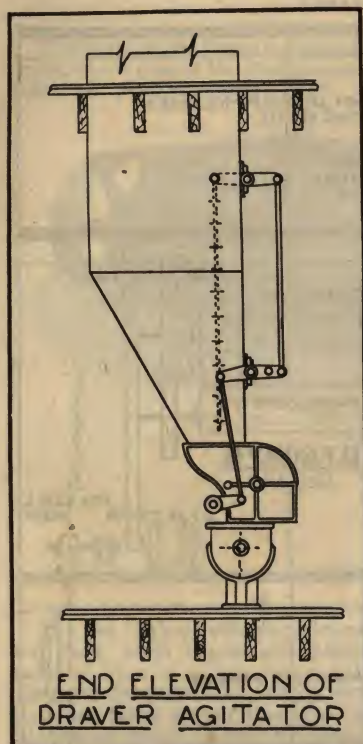
PRICES—WEIGHTS

Size Number	Price Each	Diameter of Variable Shaft Inches	Smallest Ratio Obtainable	Greatest Ratio Obtainable	Pulley Speed R. P. M.	Standard Size of Pulley Inches	Approximate Shipping Weight Crated, Lbs.
1-R	\$ 35.00	1 $\frac{1}{2}$	3 to 1	50 to 1	25-50	12x3	135
4-S	65.00	1 $\frac{1}{2}$	3 to 1	50 to 1	25-50	13x5	225
6-T	150.00	2	4 to 1	60 to 1	25-50	16x7	475

OPTIONAL: { For No. 1-R 23-tooth No. 45 or No. 55 Sprocket, without extra charge.
 For No. 4-S 26-tooth No. 62 Sprocket, without extra charge,
 For No. 6-T 23-tooth No. 67 or No. 77 Sprocket, without extra charge.

Additional Prices for Other Sizes of Pulleys and Sprockets on Application

DRAVER BIN AGITATORS



Patented

For preventing material such as flour, bran, middlings or alfalfa bridging above the feeders.

Adjustable, reciprocating agitators are especially designed to prevent bridging or choking of such materials as Flour, Alfalfa, Bran, Middlings, etc., above the feeder.

They are so constructed as to be operated from the oscillating rocker shaft of a battery of feeders driven by our "Master" Drive, shown on page 3.

One or more agitators may be installed in each bin, depending upon the width of hoppers. They are simple in construction and operation and will keep all materials that do not flow freely, moving in a continuous and uniform stream.

STANDARD EQUIPMENT for ordinary hoppers is, Length of agitator rod 3 ft. 2 in.; upper rocker-shaft $1\frac{1}{16}$ in., lower rocker-shaft $1\frac{1}{16}$ in., unless otherwise specified.

No. 200. Price of one agitator 5 ft. or less with driving arm.....	\$30.00
Each additional agitator.....	20.00

(Rocker Shafting furnished at additional cost.)

NOTE.—Agitators longer than 5 ft. can be furnished. Prices upon application.

DRAVERS WILL SAVE MONEY FOR YOU SOME PLACE IN YOUR MILL

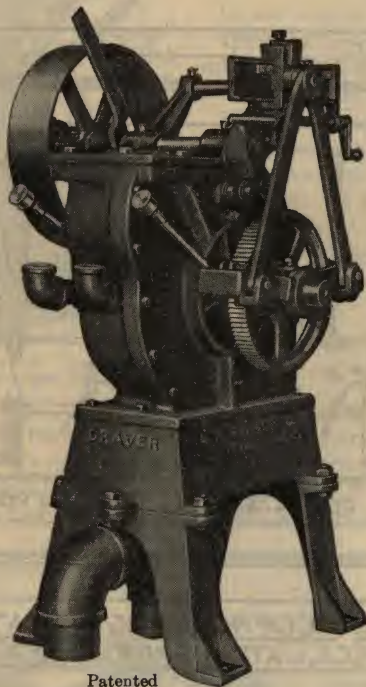
Because DRAVER Feeders are so widely and favorably known as the most efficient mixing and blending machines, the fact that there are other uses is sometimes overlooked. By using a Draver just ahead of your attrition or Hammer-mill you can obtain the maximum capacity that the motor will handle without overcrowding, and a Draver regulating the flow to a conveyor or elevator will eliminate troublesome "choke-ups."

With a Draver regulating the quantity of material to your sifters or screens, the capacity can be instantly changed to suit the product or other conditions.

For full efficiency, for obtaining the absolute maximum without overcrowding, use Draver Feeders.

"DRAVER" MOLASSES FEEDER OR REGULATOR

STYLE "M" WING TYPE WITH PERCENTAGE VALVE

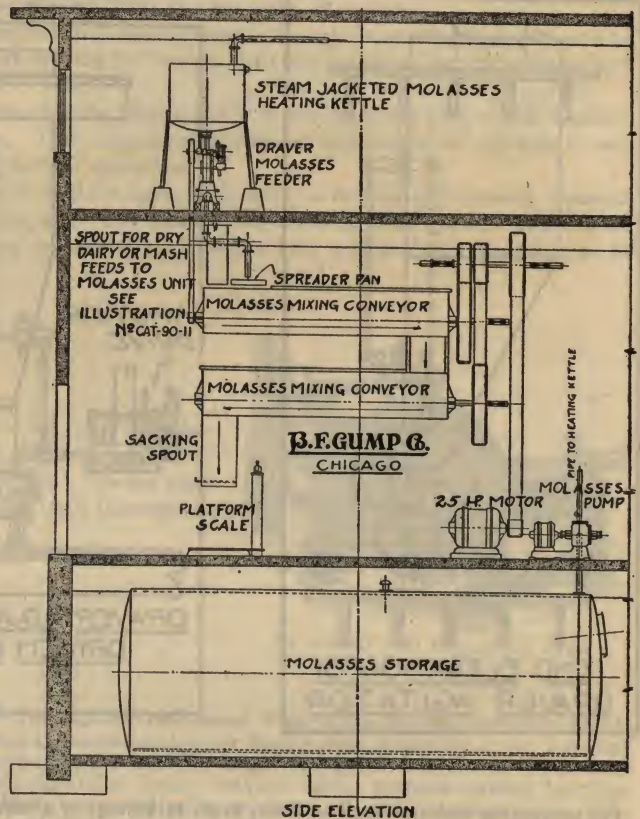


Patented

Designed especially for feeding molasses in a uniformly regulated flow for feed mixing plants and enables the operator to determine the exact amount being fed at any time by simply turning the percentage valve, diverting the flow for a certain time.

GENERAL CONSTRUCTION

Made in two styles; one constructed entirely of iron and steel with bronze percentage valve. The other is constructed of extremely hard gun-bronze and Monel metal to assure maximum wear and resistance to corrosion by the acids present in molasses. The interior construction of the bronze Feeder has been changed to make the machine more efficient.



Within the casing is a rotating feeding or measuring wing having a double row of cups running flush with the casing, giving a steady, uniform discharge of molasses. The measuring wing is driven with the Draver Improved Double-Acting Ratchet Mechanism with which the speed of the wing can be varied to feed more or less as desired.

PRICES—DIMENSIONS—WEIGHTS

ALL IRON		BRONZE BODY Monel Wing		Capacity Gallons Per Minute	Height to Inlet Inches	Size Overall Inches	Speed of Drive Shaft	Size Pulley Inches	Approximate Shipping Weight Crated Pounds
Size No.	Price Each	Size No.	Price Each						
21	\$135.00	23B	\$250.00	10	28	15x16	20 to 45 R.P.M.	12x3	235

The above prices are for feeders with pulley as listed.

Inlets are threaded for 2½ inch pipe.

Will furnish 23 or 30 tooth Sprockets for No. 45 or 55 chain in place of pulley, if desired.

MOLASSES SPREADER

For Sprinkling Molasses On Dry Feed In Numerous Fine Streams

To add molasses to feeds with the best results it should not be poured on the feed in a heavy stream, but should be distributed in numerous, fine streams. Realizing this we have designed the Molasses Spreader shown in the cut, and which has proven successful in this type of work. A great deal of experimenting was necessary before this appliance was perfected, but we are now in a position to furnish them for use above conveyors ranging in size from 6 to 16 inches, and can furnish them made from zinc or sheet copper. Write for prices.



IDEAL CONTINUOUS FEED MIXER

(For Dry and Molasses Feeds)

Extra heavy construction, with Hyatt Roller Bearings and Cut Gears

The trend of the times is toward the more rapid and automatic continuous process of mixing balanced rations. In the big commercial plants the continuous process is an economic necessity, and for smaller installations the savings in time and labor are proportionately great.



Fig. RB118

For the highest efficiency in continuous mixing we offer our New Ideal Continuous Mixer. This consists of two parallel lines of adjustable paddle flight mixing conveyor mounted in a divided bottom steel box. The steel mixing paddles, being bolted through the solid shafts, are adjustable to any pitch, so that the material is held in the machine only long enough to insure a perfect mix.

A removable steel cover completely seals the machine while in use, and affords ready access to the interior for inspection, cleaning or repair.

The lower half of the discharge end is cut away, allowing

free, quick, and unrestricted discharge of the finished product. The discharge area is greater in the Ideal than in other mixers of this type, being made possible by the unique design of box end and bearing mounting.

The Twin-Agitator shafts are carried, at both ends, in improved Hyatt Roller Bearings, resulting in a considerable power saving over plain bearing mixers.

The Guarded Cut Spur Gears that reverse the direction of revolution between the two agitators is another detail that emphasizes the care with which this machine has been designed.

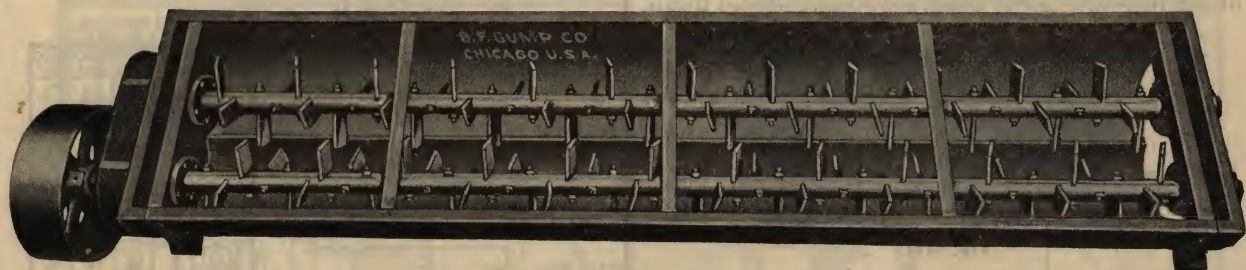


Fig. RB119

Showing Interior of Ideal Continuous Feed Mixer

Note the method of mounting the adjustable flights and how they dovetail as they revolve, throwing and tumbling the material in an upward and forward motion. Observe also the Twin "U" Bottom with Center Apex, which directs the upward throw of the material.

CAPACITY, DIMENSIONS, NET PRICE, ETC., WITH HYATT ROLLER BEARINGS

Dimensions Over All			Capacity (Approx.) Per Hour		Drive Pulley Inches	Speed R. P. M.	Power Required H. P.	Shipping Weight Pounds	Net Price
Length Ft.	Width In.	Height Inches	Molasses Feed	Dry Feeds					
14 - 11	33	26	18 Tons	15 to 20 Tons	24 x 7	150 to 300	10 to 20	2200	\$500.00

Where conditions will permit, an individual motor with silent chain drive is recommended.

Ideal Continuous Feed Mixers are also furnished built in pairs, to be installed one over the other. The feed entering the top machine travels the entire length and discharges into the lower machine, where it is carried to the opposite end, giving ample time for thorough mixing of both Dry and Molasses Feeds—no extra charge for this arrangement.

MOLASSES METER

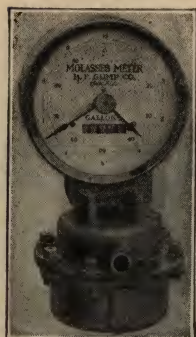


Fig. M143

A Molasses Meter is one of the most essential units in a modern Sweet Feed Plant. It should be installed in horizontal pipe line just ahead of a Draver Molasses Feeder, and will show at a glance, after completing any batch or a days run, the exact number of gallons of molasses that has gone into the mixture.

Our Molasses Meter is made by one of the largest meter manufacturers in the world. It is the Oscillating Piston Type and unusually simple in design, yet so perfect is the operating principle that the working pressures are equalized and friction and wear almost entirely eliminated.

General Specifications

Pipe size 2", length 17", height 18 $\frac{3}{8}$ ", width 12 $\frac{3}{8}$ ", weight boxed 135 pounds.

Price, Net F. O. B. Factory.....\$175.00
(Other sizes furnished—Price on application)

SEDIMENT TRAP

Solids of all kinds are injurious to a fluid meter and will, if allowed to get into the measuring chamber, hinder its operation and destroy its accuracy.

Our Sediment Trap in pipe line ahead of meter gives full protection. It has copper strainer screen, basket form, which gives extra large area of straining surface, and admits of an unusually large accumulation of foreign matter before cleaning becomes necessary. When cleaning the cover plate is taken off, the strainer lifted out, emptied and returned in a few minutes without disturbing pipe line.

Price (2" pipe size) Net F. O. B. Factory.....\$25.00



Fig. M144

BLACKMER ROTARY PUMP

The Blackmer Rotary Pump has proven particularly efficient in the handling of molasses and other heavy, sticky liquids. We can, therefore, heartily recommend this pump to our feed mill friends.

Having a positive suction, the Blackmer Pump need not be primed, and the flow of liquid is continuous, not intermittent as in reciprocating pumps.

The Body of the pump is of heavy cast iron, with close fitting, renewable bronze lining, and Steam Jacketed Heads.



Fig. M145

Standard equipment includes Pump on Cast Iron Base, Motor with Starter and enclosed Silent Chain Drive.

SIZES, DIMENSIONS, NET PRICES, ETC. F. O. B. Factory

Pump No.	Pipe Size Inches	Capacity G.P.M.	Dimensions Over All			Size Motor	Weight Pounds	*Net Price
			Length	Width	Height			
4	2	25	39 $\frac{1}{4}$	16 $\frac{3}{4}$	12 $\frac{1}{4}$	3-H.P.	425	\$202.40
6W	2 $\frac{1}{2}$	50	47 $\frac{1}{8}$	21 $\frac{1}{2}$	15	5-H.P.	815	\$24.35
8	3 $\frac{1}{2}$	100	58 $\frac{1}{8}$	27 $\frac{1}{2}$	23 $\frac{1}{2}$	7 $\frac{1}{2}$ -H.P.	1320	\$51.55

*Price includes 1800 R.P.M. Motor for A. C. Current, 3-phase, 60-cycles, 220 or 440-volts. For other current characteristics or for Belted Pumps—Price on application.

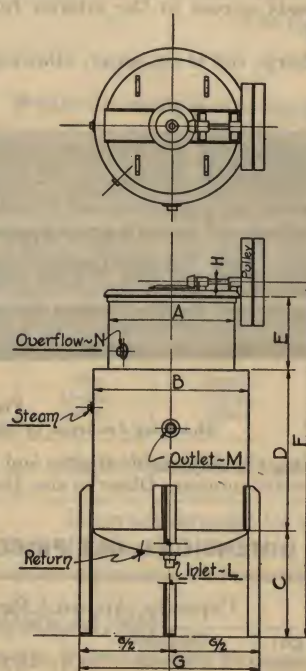
MOLASSES HEATING KETTLE

Gump Molasses Heating Kettles are of correct design and very substantially constructed.

They are made of heavy boiler plate, securely riveted and steam jacketed on bottom and around sides, for a working pressure of 75 pounds.

Agitator of the single sweep type is provided with horizontal drive shaft and tight and loose pulleys.

Furnished complete with legs and fittings as illustrated.



SIZE	100 Gal.	250 Gal.	500 Gal.	1000 Gal.
A	30	42	54	72
B	36	48	60	78
C	20	32	34	37
D	30	42	50	60
E	15	15	15	15
F	69	93	103	116
G	42	54	66	84
H	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$
J				
K				
L	3	3	4	4
M	2	3	4	4
N	3 $\frac{1}{2}$	3 $\frac{1}{2}$	5	5
HP To Drive	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4 $\frac{1}{2}$
Agitator Size	18x2	18x3	20x4	24x6
R.P.M.	152	108	86	64

Fig. M146

SIZES, DIMENSIONS, NET PRICES, ETC. F.O.B. Factory

Capacity Gallons	Shipping Weight Pounds	Net Price	Capacity Gallons	Shipping Weight Pounds	Net Price
100	1700	\$348.00	500	4800	\$714.00
250	2500	\$504.00	1000	7400	\$970.00

GUMP FEED MIXING CONVEYOR

For Dry and Molasses Feeds



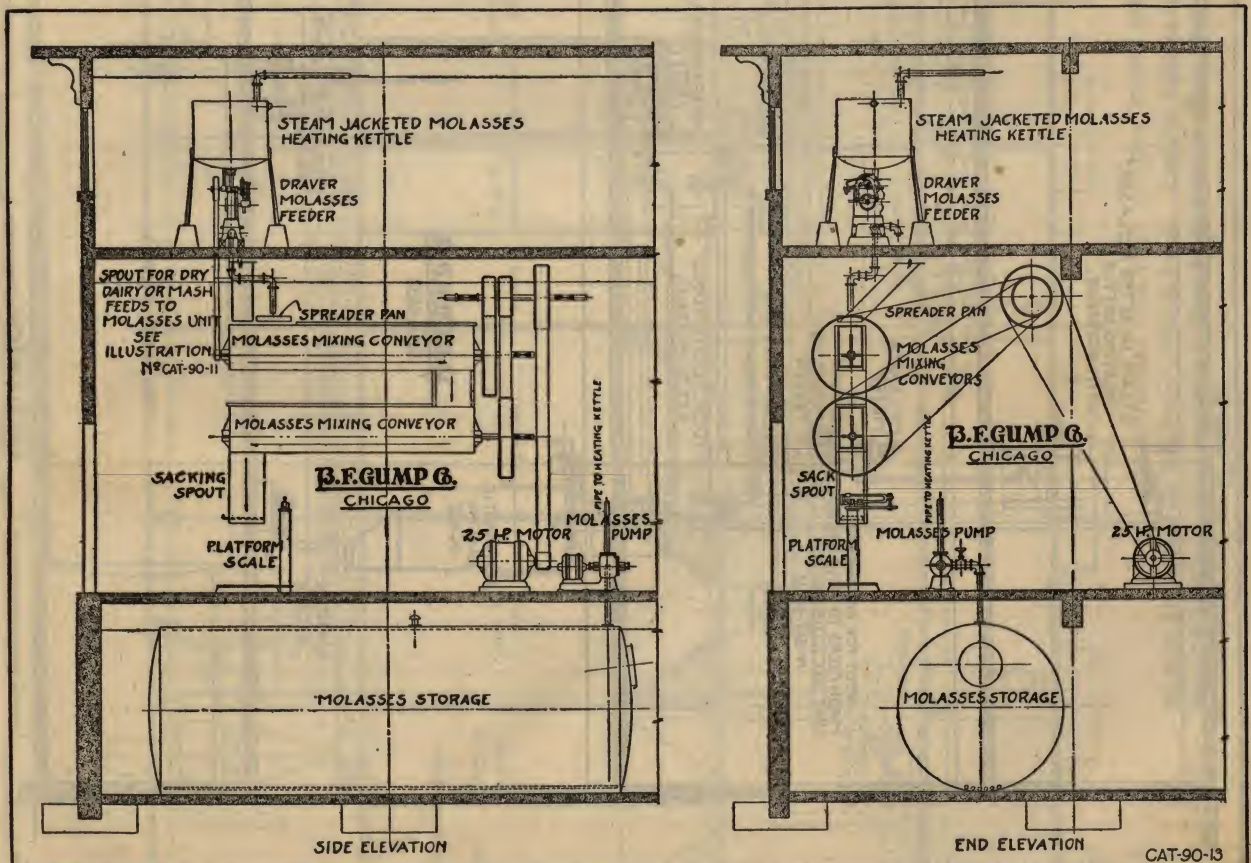
Fig. RB141

Designed for use singly or two high. Particularly well adapted to the mixing of molasses feeds in medium and small plants. Used in the continuous feed mixing process and well suited for retail and custom trade. Specially constructed with cast iron sectional flights which convey and mix the different products at the same time. Furnished complete with deep, heavy wood box, cast iron bearing ends and journals, set up ready for operation. **Minimum length supplied 10 feet. Left hand conveyor furnished unless otherwise specified.**

SIZES AND NET PRICES

9-Inch Dia., Sing. Conv., Cap. 1 to 4 tons per hr., at 150 R.P.M., net per ft.....	\$11.50
12-Inch Dia., Sing. Conv., Cap. 3 to 6 tons per hr., at 150 R.P.M., net per ft.....	15.00
All lengths furnished, 10 feet long and over, at above prices.	

MOLASSES FEED MIXING PLANT

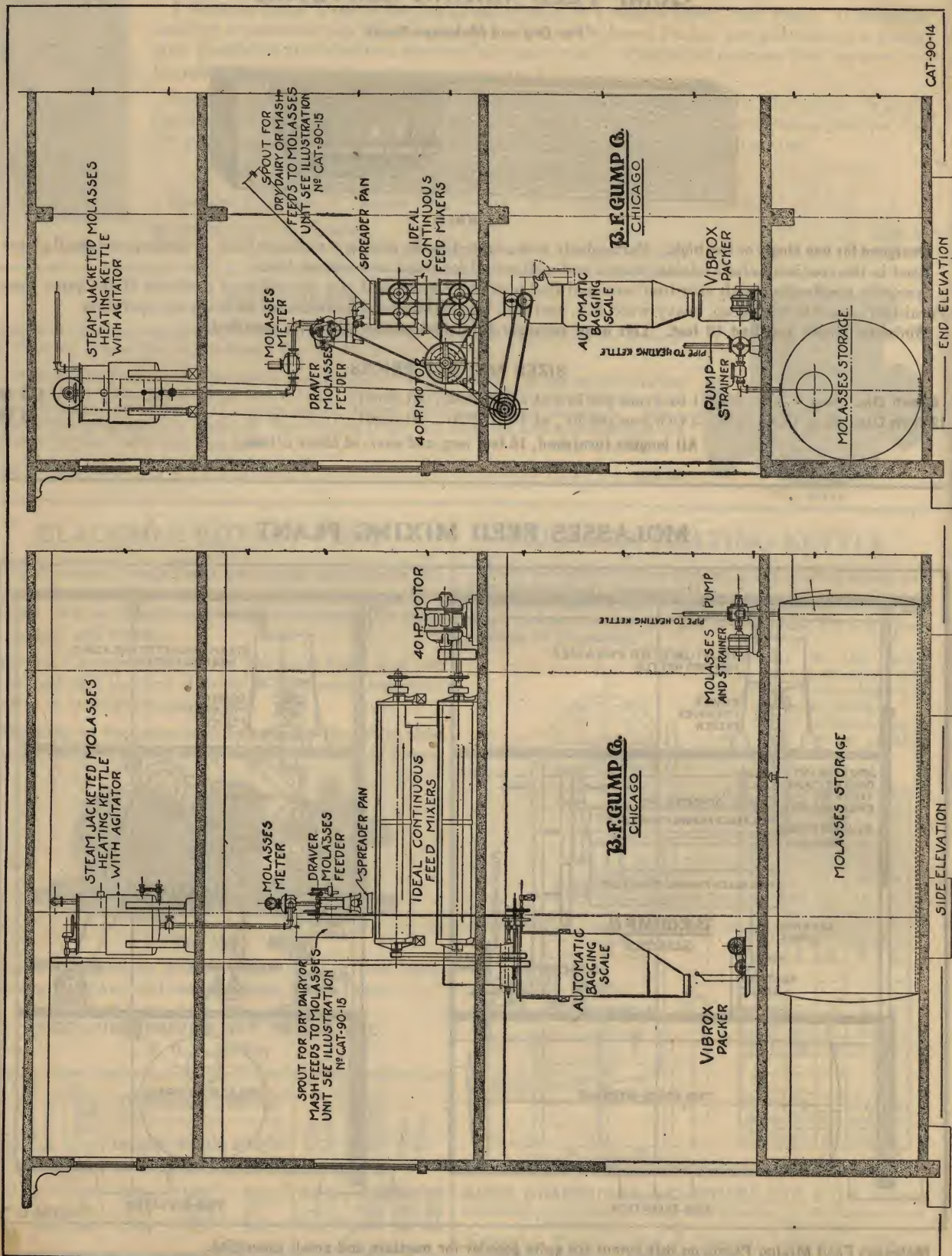


Molasses Feed Mixing Plants on this system are quite popular for medium and small capacities.

They occupy very little space and economize in both equipment cost and installation expense.

Above illustration shows a Single Unit, including a two-high installation of Gump Feed Mixing Conveyors, giving a capacity of nine tons per hour or three bags per minute.

MODERN MOLASSES FEED MIXING PLANT FOR LARGE AND MEDIUM CAPACITIES

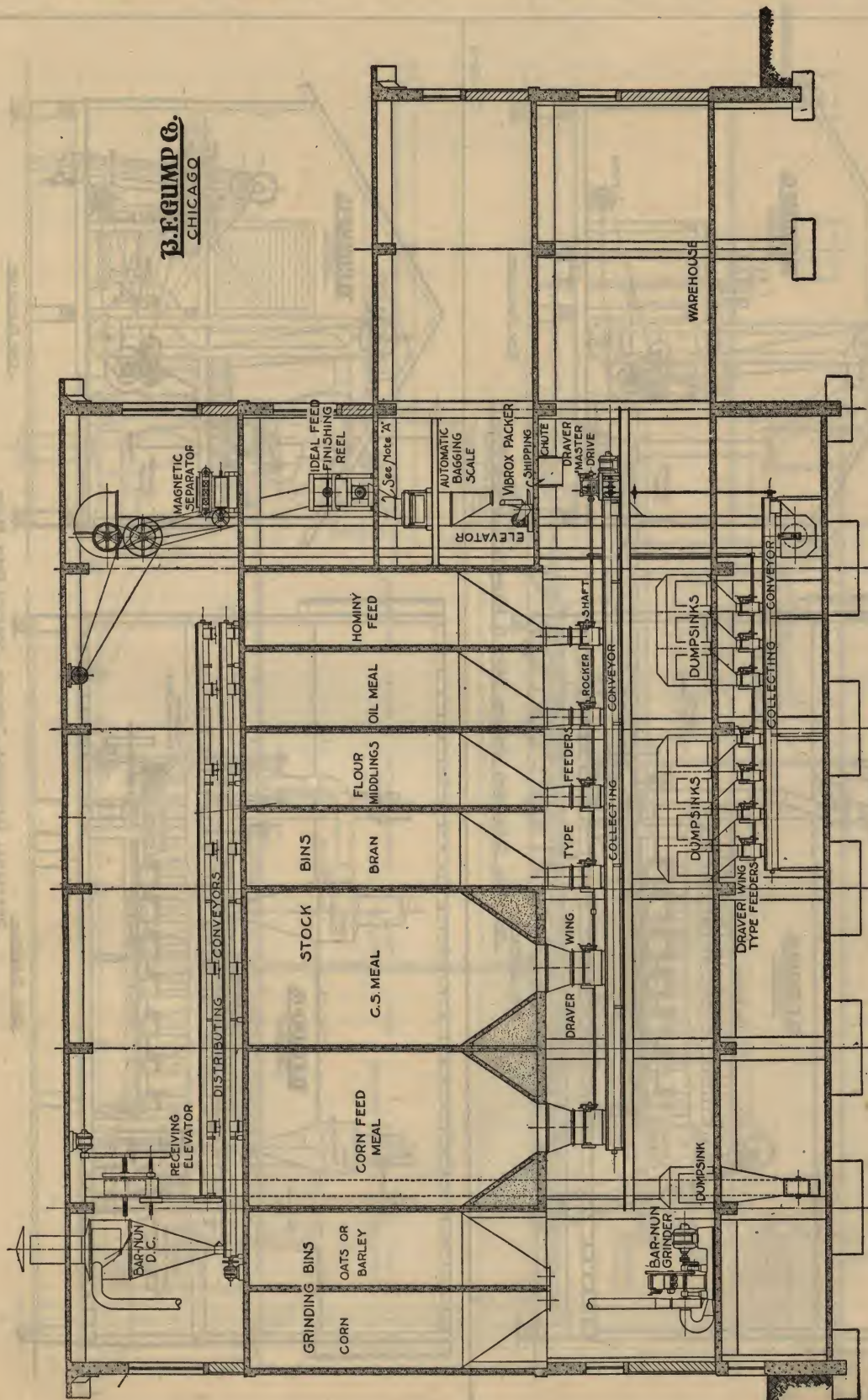


Above illustration shows Single Unit of fourteen tons per hour capacity, or four and one-half bags per minute. Adding one Bagging Scale and one "Vibrox" Packer and increasing motor to fifty horse power increases capacity to eighteen tons per hour, or six bags per minute.

DRY DAIRY OR MASH FEED PLANT

CAT-90-15

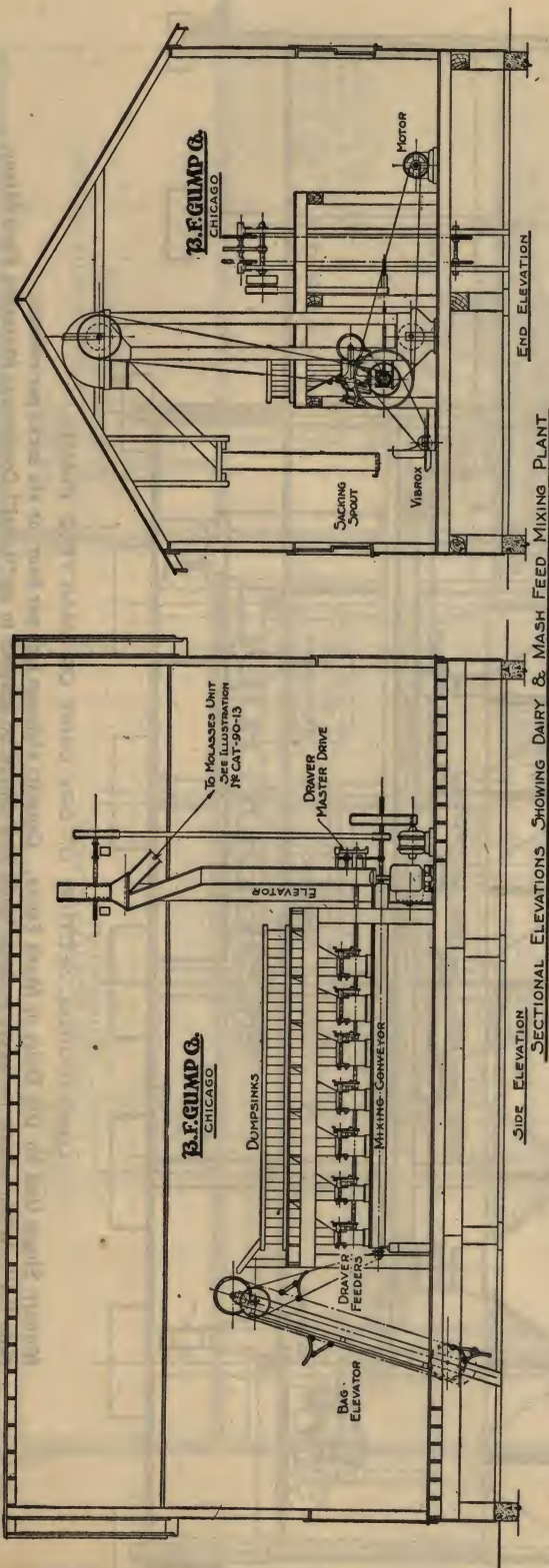
B. F. GUMP & CO.
CHICAGO



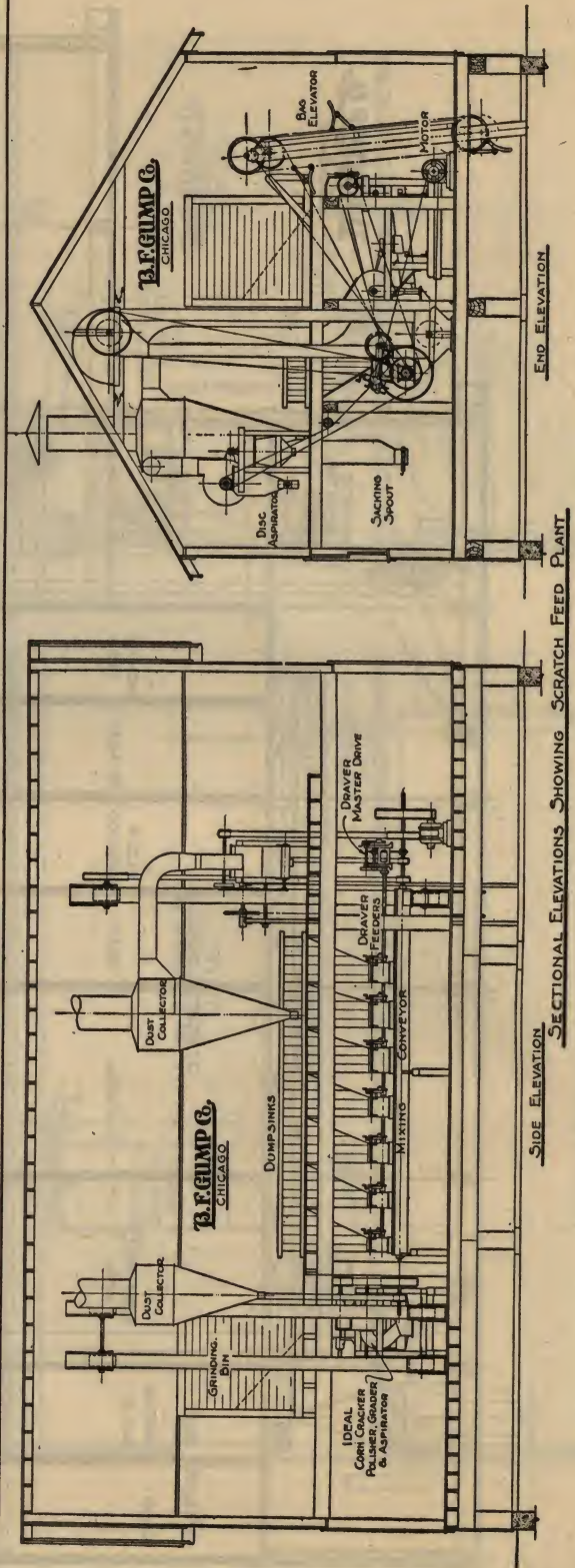
LONGITUDINAL SECTION OF DRY DAIRY OR MASH FEED PLANT

Modern Single Unit for Dry Dairy or Mash Feeds. Capacity eighteen tons per hour, or six sacks per minute.
Note "A"—When adding molasses to these feeds they should be spouted to an "Ideal" Continuous Molasses Feed Mixer.
See illustration Cat.-90-14, page 22.

DAIRY AND MASH FEED PLANT



SCRATCH FEED PLANT

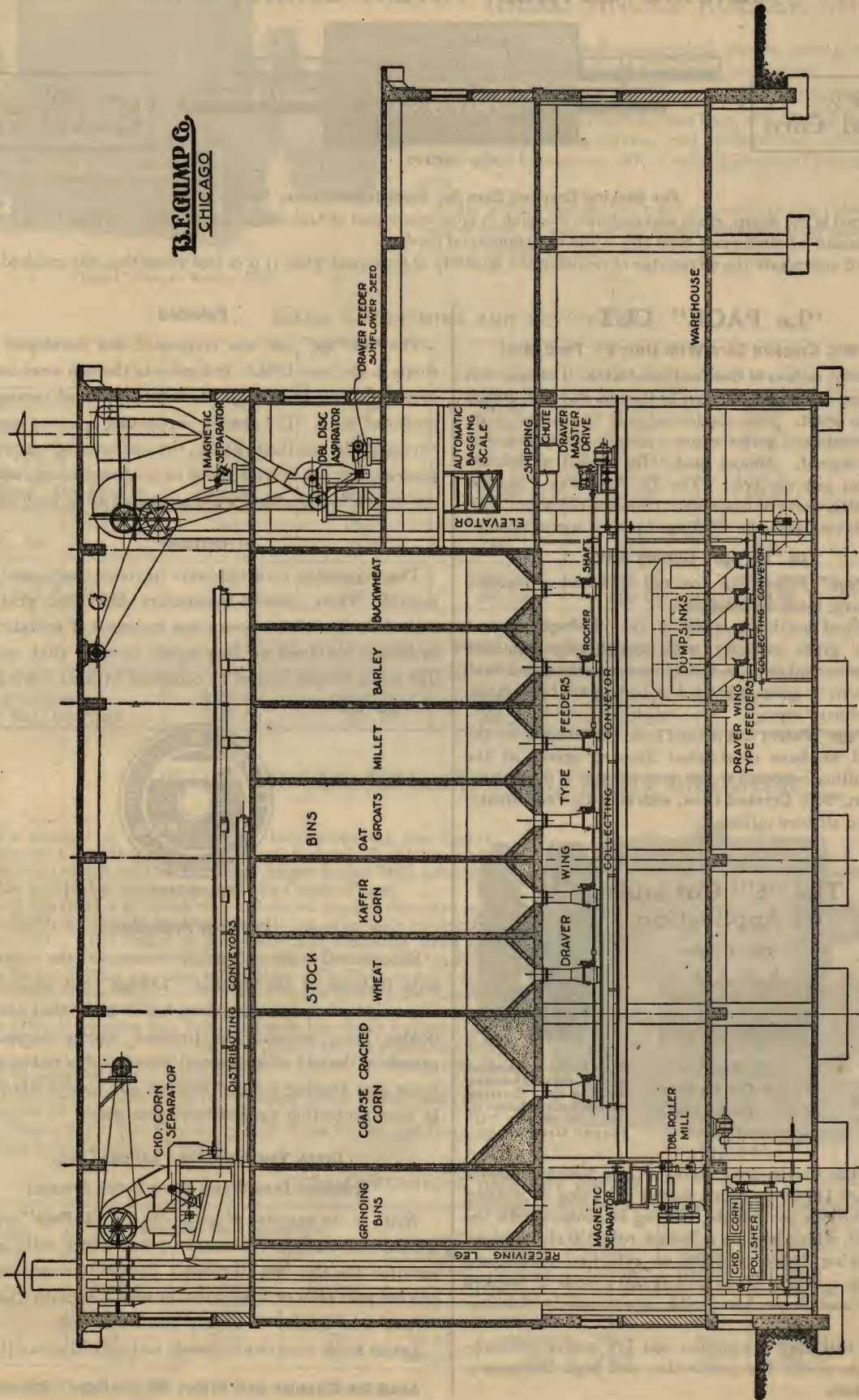


Feed Plants for medium and small capacities, from one to three sacks per minute, where one story only is available.

MODERN SCRATCH FEED PLANT

CAT-90-10

B.F. GUMP CO.
CHICAGO



LONGITUDINAL SECTION OF SCRATCH FEED PLANT

The above illustration shows a complete, modern Single Unit for Scratch Feeds. Capacity eighteen tons per hour, or six sacks per minute.

GENUINE "Le PAGE" PATENT CORRUGATION

- 96% -
Cracked Corn



Fig. RC107

- 96% -
Cracked Corn

For Making Cracked Corn for Scratch and Horse Feeds

Every kernel is cut sharp, clean and uniform, pleasing in appearance and of high sales value. The "LePage" cut feed will always command a better price than the ordinary commercial product.

Millers will appreciate the advantage of reducing the quantity of feed meal when it is of less value than the cracked grain.

"Le PAGE" CUT

Makes 96% Cracked Corn With Only 4% Feed Meal

Four per cent or less of fine feed meal with "LePage" cut against fifteen or twenty per cent in the old way will greatly increase your profit. This applies not only to cracked corn, but to all cereals and grains where a uniform cut or granular product is desired. Almost bushel for bushel of finished product from raw material "The Le Page Way," against nearly one-fifth waste or by-product from the old way. Will pay you to investigate the "LePage" patent corrugation.

The "LePage" Cutting Action

The "LePage" Patent Cut does not reduce by abrasion—it CUTS sharp, clean and uniform.

The practical cutting method of the "LePage" Patent Corrugation gives capacity with less horsepower, less waste, less wear and tear, and at a lower operating cost than where the corn or grain is ground or torn apart by friction, as in the ordinary way.

The "LePage" Patent Cut is used from the Atlantic to the Pacific, and we have established licensed agents at the principal milling centers for the convenience of the trade.

Our slogan, "96% Cracked Corn, with only 4% Feed Meal," is familiar to all corn millers.



"Le Page"
Patent Cut
for Fast Roll
(Lengthwise
Cut)

The "U" Cut and Its Application

Fig. RC108



"Le Page"
Patent Cut for Slow
Roll (Ring-around
or Helical Cut)



Both Rolls in Contact
with Grain, Showing
Method of Cutting
without Crushing by
the Use of the "U"
Shaped Groove

Refer to the illustrations above. On a 9-inch diameter roll there are 140 sharp edged knives revolving at a speed of 550 revolutions per minute, coming in contact with the opposite roll, which has, on a 30-inch roll, 150 sharp edged knives, making 77,000 contacts or cuts per minute and producing on a double stand mill 12,000 pounds of cracked corn or 215 bushels per hour, with approximately 10 horsepower.

Contrast this high production and low power consumption with the costly low production and high horsepower of knife cutters.

Patented

The "LePage" cut was originated and developed in our shops in the year 1914. Two patents thereon were issued in 1916, covering every possible combination of corrugations produced with "U" shaped separating grooves and also covering the method which, by differential movement, separated or cut kernels could be held uncrushed, while the cut or cracked portions were separated from each other.

Imitation

The principles involved were revolutionary and fundamental. Their general acceptance has been gratifying; and while there have been some instances of imitation, the invention has been so thoroughly covered that anything like equal results cannot be obtained without infringement of our patents.



Fig. RC109

For Your Protection

Experienced millers readily recognize the characteristic features of the genuine "LePage" cut and are not deceived by inferior imitations, but to make that assurance doubly sure, we and our licensed agents permanently attach to the end of one journal of each roll a red and black brass seal bearing a serial number and patent date which is your protection against imitation cuts.

Crack Your Corn the "LePage" Way

It Means Less Waste and a Better Product

Write us for samples of grain cut the "LePage" way and we will advise you the nearest point where rolls may be sent for the Genuine "LePage" Patent Corrugation. We can cut your rolls or furnish new or used rolls with "LePage" Patent Corrugation to fit any size roller mill.

Let us know your requirements and we will quote thereon.

Send for Circular and Prices on "LePage" Patent Cut

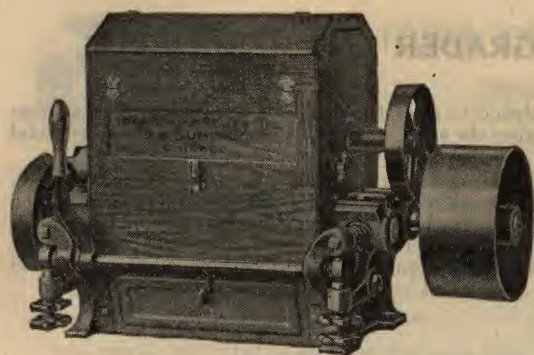


Fig. RB120
"Ideal" Single Roller Mill

IDEAL SINGLE ROLLER MILL

Ideal Mills are well constructed, simple, strong and durable, requiring the minimum in floor-space and power.

Made in six sizes, containing all the essential features of a large roller mill, viz.: roll feeder, solid base, roll setting device, throw-out lever, tramping device, coil springs, etc. Furnished with either plain bearings or S-K-F self-aligning ball bearings of ample size.

Rolls will be corrugated regular to suit product desired, ten to inch or finer, or with LePage Patent Corrugation for making Cracked Corn, Cracked Cereals, etc.

SIZES, DIMENSIONS AND NET PRICES

Sizes.....	6x12 in. Rolls	6x15 in. Rolls	6x18 in. Rolls	7x14 in. Rolls	9x14 in. Rolls	9x18 in. Rolls
Height.....	26 in.	26 in.	26 in.	27 in.	30 in.	30 in.
Width.....	34 in.	37 in.	40 in.	39 in.	40 in.	44 in.
Depth.....	18 in.	18 in.	18 in.	21 in.	27 in.	27 in.
Speed, R.P.M.....	600-650	600-650	600-650	550-600	550	550
Fast Pulley.....	8x4 in.	8x4 in.	10x5 in.	12x6 in.	12x6 in.	14x6 in.
Cap. Feed., Bu. Per Hr.	15-20	20-25	22-30	20-25	40-50	50-60
Cap. Screenings, Bu. Per Hr.	8-10	10-12	11-14	10-15	12-18	20-25
Weight, lbs.....	440	500	550	575	900	950
Plain Bearings.....	\$240.00	\$250.00	\$285.00	\$295.00	\$325.00	\$375.00
S-K-F Ball Bearings.....	315.00	325.00	360.00	370.00	410.00	465.00

PRICES WITH LePAGE PATENT CORRUGATION

Plain Bearings.....	\$268.00	\$282.70	\$322.75	\$322.60	\$353.15	\$412.25
S-K-F Ball Bearings.....	343.00	357.70	397.75	392.60	438.15	502.25

"IDEAL" SINGLE ROLLER MILL WITH BREAKER

For a number of years we have been supplying the Casein Industry with grinding mills. The Ideal Roller Mill with Breaker is a redesign of our well known Ideal Single Roller Mill, adapting it to the particular requirements of the Casein Trade.

Above the regular grinding rolls is located a small diameter corrugated roll, working in conjunction with an adjustable stationary breaker bar. This makes a first reduction, breaking down the lumps to a medium and uniform size, and delivering the material evenly to the regular grinding rolls below. The bottom rolls with finer corrugations make the final reduction, delivering the finished product ready for grading or shipment.

The drive is by open belt from motor or line shaft to lower fast roll. The differential drive to slow roll is through machine cut gears, protected with cast iron guard. Upper reduction roll is driven by guarded roller chain.

This is a self-contained unit requiring little space, and very economical to install and maintain.

For Shaker Sieve and Revolving Reel Type Sifting and Grading Machines refer to pages 36 and 37.

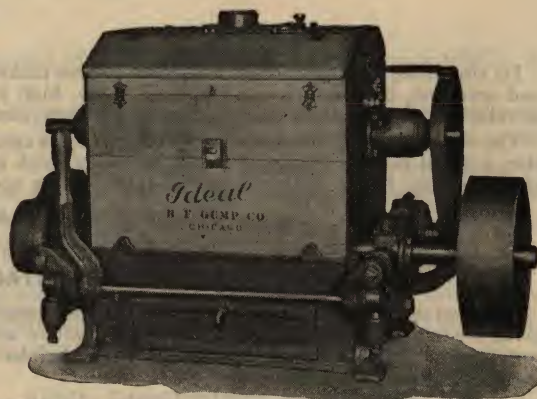


Fig. RB136

SIZES, DIMENSIONS AND NET PRICES

Roll Size Inches	Dimensions Over All			Capacity Bushels per Hour	Speed R.P.M.	Size Pulley Inches	Weight Pounds	Net Prices	
	Width Inches	Depth Inches	Height Inches					Plain Bearing	SKF Ball Bearing
6x15	39	18 $\frac{3}{4}$	27	8-10	600-650	8x4	500	\$285.00	\$370.00
6x18	42	18 $\frac{3}{4}$	27	10-12	600-650	10x5	550	325.00	410.00
9x18	42 $\frac{1}{2}$	25	29	20-30	550	14x6	950	400.00	495.00

Other sizes can be furnished—Price on application.

IDEAL CORN CRACKER, POLISHER, GRADER AND ASPIRATOR

The **Ideal Corn Cracker, Polisher, Grader and Aspirator** has been designed to meet the demands of the retail and custom feed trade. It offers, in a **Self Contained Unit**, an outfit that accomplishes the same results obtained in the big commercial plants using individual machines for each operation.

A Gump "Ideal" Single Roller Mill, equipped with "LePage" Patent Corrugations, cracks the corn the "LePage" Way. The cracked grain drops into the **Polishing Cylinder** where the sharp edges are removed and a nice polish applied, it then discharges on to the **Grader**, of the **Sieve Type**, which makes four distinct separations: scratch size cracked corn, developer cracked corn, baby chick size and feed meal. Each of the three finished grades of cracked corn are thoroughly and separately **aspirated**. A Gump, Cyclone Type, Dust Collector receives the exhaust from Aspirator Fan. Nothing is left unprovided for. All you need do is set the outfit in position and apply the power.

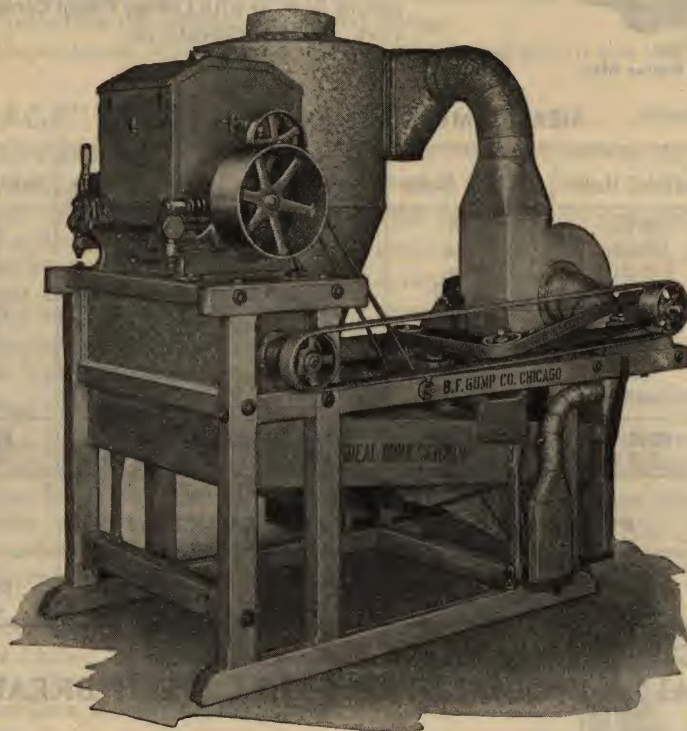


Fig. RB137

**SHAKER SIEVE
OPERATED WITH
JUBY DRIVE
GIVING A SMOOTH
EVEN MOTION
WITHOUT THE
VIBRATION OF
ECCENTRICS**

**BALL BEARINGS
ON FAN SHAFT

CAST CUT GEAR
AND BAKELITE
NOISELESS PINIONS
ON "LE PAGE" CUT
ROLLS**

Its simplicity of construction and compactness makes this an "Ideal" outfit for the miller, feed dealer, elevator operator and seedman, enabling them to make a clean, high grade cracked corn product for preparing and compounding scratch, developer and baby chick feed and feed for horses, mules, etc.

The clean cracked corn produced by this machine approximates about 80% of bright, evenly graded product of scratch feed size, a small percentage of developer and baby chick size, and the remainder in feed meal, loose particles, bran, impurities, etc., each one being delivered to separate sacking spouts.

Samples of Product Upon Request

DISTINCT ADVANTAGES OF "LE PAGE" CRACKED CORN

Being equipped with a roller mill, having the genuine "LePage" Patent Corrugation, "Cracking Corn the Le Page Way" gives the owner of this mill these additional distinct advantages: A uniformly cracked corn product, polished and free from corn-feed-meal and flour-dust; bright, sharp and clean-cut, of pleasing appearance and selling readily at a higher price than the ordinary cracked corn.

SIZES, DIMENSIONS, NET PRICES, ETC.

Size of Rolls	*Dimensions Over All			Size on Floor	Mill Drive		Polisher Drive		Horse Power Req.	Cap. Bushels per Hr.	Shipping Weight Pounds
	Length Inches	Width Inches	Height Inches		Size Pulley	Speed R.P.M.	Size Pulley	Speed R.P.M.			
6x15	70	40½	68½	45"x27½"	12"x5"	650	9"x5"	900	3	25-30	800
9x18	97½	58	79	72¾"x44"	16"x6"	550	9"x5"	900	7½	60-65	2600

*Over all dimensions do not include space required for Dust Collector.

Prices on application

Fig. RB121
Style "K"

IDEAL CORN CRACKERS

Styles "K" and "M"

The Styles "K" and "M" Mills make possible the production, on a small scale, of a fine quality of cracked corn and other cereals that compare favorably with the work done on larger merchant mills.

The Style "K" Mill comes equipped with one pair of "LePage" Patent Cut Rolls, for cracking corn to Scratch Feed Size.

The Style "M" Mill is made of the same Unit Parts as the Style "K," but has one additional roll section, thus making it two pair high, for turning out Baby Chick size cracked corn without changing rolls.

A Special Squirrel Cage Type Feeder is furnished with either type mill and is necessary when grinding small grain or fine materials. Price, Net Extra\$20.00

Interchangeable extra rolls may be had with standard or "LePage" Patent corrugations adapting the mill for any class of work for which a roller mill is suited.

Style "K" Ideal Corn Cracker complete with one pair of "LePage" Patent Cut Rolls, Scratch Feed size, capacity from 10 to 12 bushels per hour, requiring $\frac{3}{4}$ to 1 H.P. Pulley size 12x2 inches, speed 300 to 400 r.p.m. Shipping weight 90 pounds, net price.....\$75.00

Style "K-S" Ideal Corn Cracker. This is the same as style "K" except that it is mounted on a rigid iron stand. Shipping weight 210 lbs. Net price.....\$105.00

Style "K-1" Ideal Corn Cracker. This is the same as Style "K" except that it is mounted on a rigid iron stand and equipped with the Bolting System. Shipping weight 280 lbs. Net price.....\$185.00

Fig. RB122
Style "M-1"

Style "M" Ideal Corn Cracker complete with two pairs of "LePage" Patent Cut Rolls, scratch feed size at the top and Baby Chick size at the bottom. Capacity 5 to 7 bushels per hour requiring 1 to $1\frac{1}{2}$ H.P. Pulley 12x3 inches, speed 300 to 400 r.p.m. Shipping weight 160 pounds. Net price.....\$150.00

Style "M-S" Ideal Corn Cracker. This is the same as Style "M" except that it is mounted on a rigid iron stand. Shipping weight 280 lbs. Net price.....\$185.00

Style "M-1" Ideal Corn Cracker. This is the same as Style "M" except that it is mounted on a rigid iron stand and equipped with the Bolting System. Shipping weight 350 lbs. Net price.....\$275.00

IDEAL CORN CRACKER AND GRADER

Style "D"

The "Ideal" Corn Cracker and Grader was designed for those desiring to crack corn scratch size and grade ONLY; does no polishing or aspirating.

**96% of Profitable
Cracked Corn and other
Cereals with only
4% of the non-profitable
fine feed meal**

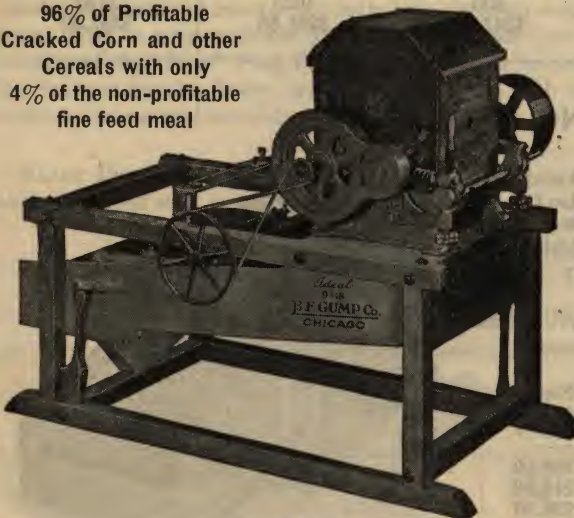


Fig. RB123

The Style "D" outfit consists of an Ideal single roller mill, with "LePage" cut rolls, mounted on sieve grader. Sieve motion is through means of our patented Juby Drive which replaces the old style eccentrics, gives a perfectly balanced back and forth movement, operates without vibration and prolongs the life of the machine as a whole.

This perfect balanced motion, in connection with our Automatic Sieve Bumper, keeps the perforations open and the stock moving over the sieve, thus insuring maximum capacity

SIZES, DIMENSIONS, CAPACITIES, ETC.

Specifications	No. 10-D	No. 13-D
Size of rolls, Inches.....	6x15	9x18
Horse power required.....	3	$7\frac{1}{2}$
Speed, R.P.M.....	650	550
Cap. bus. per hr. (scratch).....	25 to 30	60 to 65
Size of drive pulley, inches.....	9x4	16x6
Shipping weight, approx. lbs.....	600	1,250
Net Price, Each.....	\$375.00	\$575.00

Cracks and grades in one operation. Equipped with "LePage" Patent Corrugation for cracking corn the "LePage" way.

"IDEAL" CRACKED CORN POLISHER

Revolving Beaters and Revolving Cylinder

Heavy Duty with ball bearings, cut gears, heavy steel beaters and perforated steel jacket.

Polishes or Scours cracked corn from LePage cut rolls—removes the fine meal and flour, gives the product a fine appearance and prepares it for further grading.

Capacity, 200 to 250 Bushels per hour.

DIMENSIONS

Length overall.....11 foot, 4 inches
Width, overall.....3 foot, 1¼ inches
Height, overall.....5 foot, 4½ inches
Size on floor.....3 foot 1¼ inches by 8 foot, 9 inches
Drive pulley, 18"x8½". Shipping weight 3100 lbs.

Price on Application

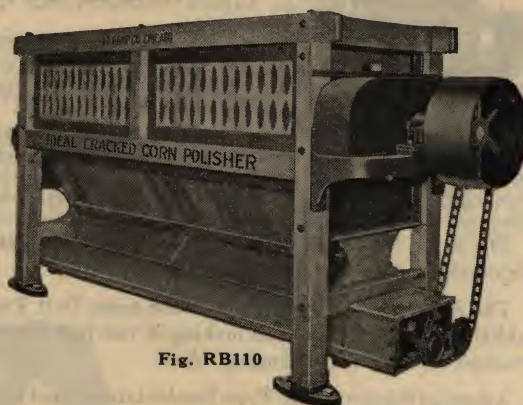


Fig. RB110



Fig. M136

GUMP CRACKED CORN POLISHER

Revolving Beaters and Stationary Cylinder.

This machine receives all of the stock directly from the break rolls or from dryers or coolers, takes out all of the fine feed and at the same time polishes the cracked corn or grits.

This is not a grading reel as it only takes out the fine feed meal. From this machine the product should go to grading reels and aspirators, or cracked corn separator.

There is a retarding iron or valve in the top which extends across the machine from end to end. This can be adjusted so that the stock is thrown from the beaters to the retarding valve. The amount of adjustment depends on the judgment of the miller as to how highly he wishes to polish the corn.

SIZES, DIMENSIONS AND NET PRICES—F. O. B. Factory

Sizes	No. 1	No. 2	No. 3	No. 4	No 5
Height.....	4'5"	4'8"	4'10"	5'	5'11"
Length.....	6'	7'	7'4"	7'6"	7'8"
Width.....	2'4"	2'6"	2'10"	3'2"	3'7"
Size on Floor.....	5'x2'4"	5'1"x2'6"	5'4"x2'10"	5'7"x3'2"	5'8"x3'7"
Height to Feed.....	4'	4'2"	4'10"	5'	5'11"
Drive Pulley.....	12"x8"	14"x10"	18"x10"	20"x10"	24"x10"
Rev. Per Min.....	300	265	265	240	215
Bu. Cap. Per Hour.....	20 to 40	40 to 80	80 to 120	120 to 160	160 to 250
Shipping Weight, lbs....	650	750	925	1035	1140
Price, Each.....	\$176.00	\$209.00	\$247.50	\$291.50	\$357.50

GUMP SCALPING SHOE

The Gump Scalping Shoe shown here is built especially for final scalp on molasses and dairy feeds just before packing. It is suitable also for any coarse scalping and is a necessary adjunct in modern feed plants.

So designed to take the very minimum of space yet with the combination of steep pitch and long throw it has remarkably large capacity.

SIZES, DIMENSIONS, NET PRICES, ETC.

Seive Ins.	Dimensions Overall			Size on Floor Inches	Size Pulley Inches	Speed R.P. M.	Shipping Weight Lbs.	Net Price
	Length Inches	Width Inches	Height Inches					
24x72	75	36	33	27½x51¼	6x3	250	360	\$195.00
30x72	75	42	33	33½x51¼	6x4	250	425	215.00
36x72	75	48	33	39½x51¼	7x4	250	485	235.00

Special Sizes made to order.—Price on application.



Fig. RB111

"IDEAL" MASH AND DAIRY FEED FINISHER

IMPROVES
YOUR
PRODUCT

—
INCREASES
YOUR
SALES

REMOVES
THE CAUSE
FOR
COMPLAINTS

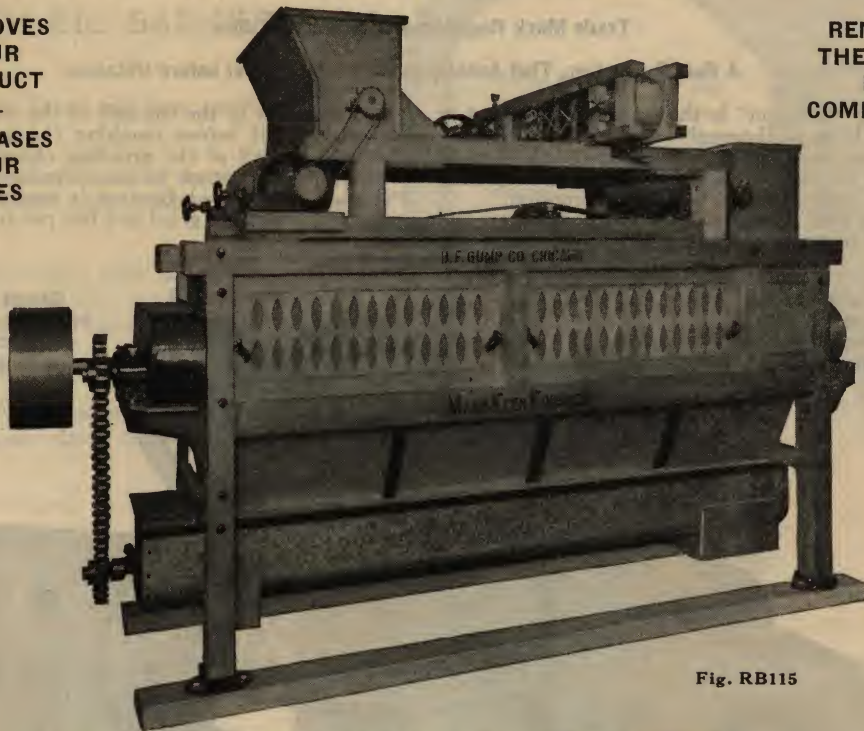


Fig. RB115

"Ideal" Feed Finisher with Electro Magnetic Separator

A New Machine recently brought out to meet the urgent needs of the expanding Feed Mill Trade.

It is built either with or without Electro Magnetic Separator.

When equipped with Magnetic Separator the stock is distributed through a special feeder onto conveyor belt which carries it under the strong magnetic field drawing out all iron particles, large or small and then delivers the feed into the Feed Finisher.

The "Ideal" Feed Finisher thoroughly mixes feed ingredients together—Blends to an even color—Acts as a regrind. Changes the texture of the feed from a gritty feeling to a soft velvety nature. Removes strings, bag fuzz, tags, paper and foreign material—breaks up lumps and meat scrap balls, etc., in other words, gives a real finish to your mash and dairy feeds. "Kicks" are unknown to users of the "Ideal" Feed Finisher. Used right ahead of Sacking Scale or Spout. Takes care of a mixing line with automatic scales. Guaranteed capacity, six bags per minute.

Heavy Duty with ball bearings, cut gears, heavy steel beaters and perforated steel jacket.

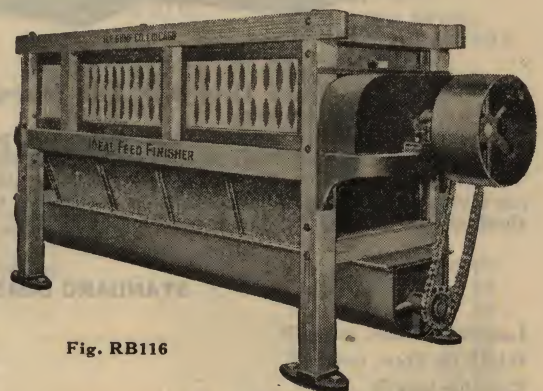


Fig. RB116

"Ideal" Feed Finisher

DIMENSIONS—WEIGHTS—ETC.

Style	Dimensions Overall			Size on Floor	Height to Inlet	Shipping Weight, Lbs.
	Length	Width	Height			
With Magnetic Separator.....	12'4½"	5'4¼"	8'2¼"	9'5½"x3'1¼"	8'2¼"	4800
Without Magnetic Separator.....	11'10¾"	3'1¼"	5'4½"	9'5½"x3'1¼"	5'4½"	3200

Drive Pulley 18"x8½". Speed 200 R.P.M.
Prices on application.

40-INCH "BAR-NUN" GRINDER

(Trade Mark Registered U. S. Patent Office)

A Real Pulverizer, That Accomplishes Results Never before Obtained

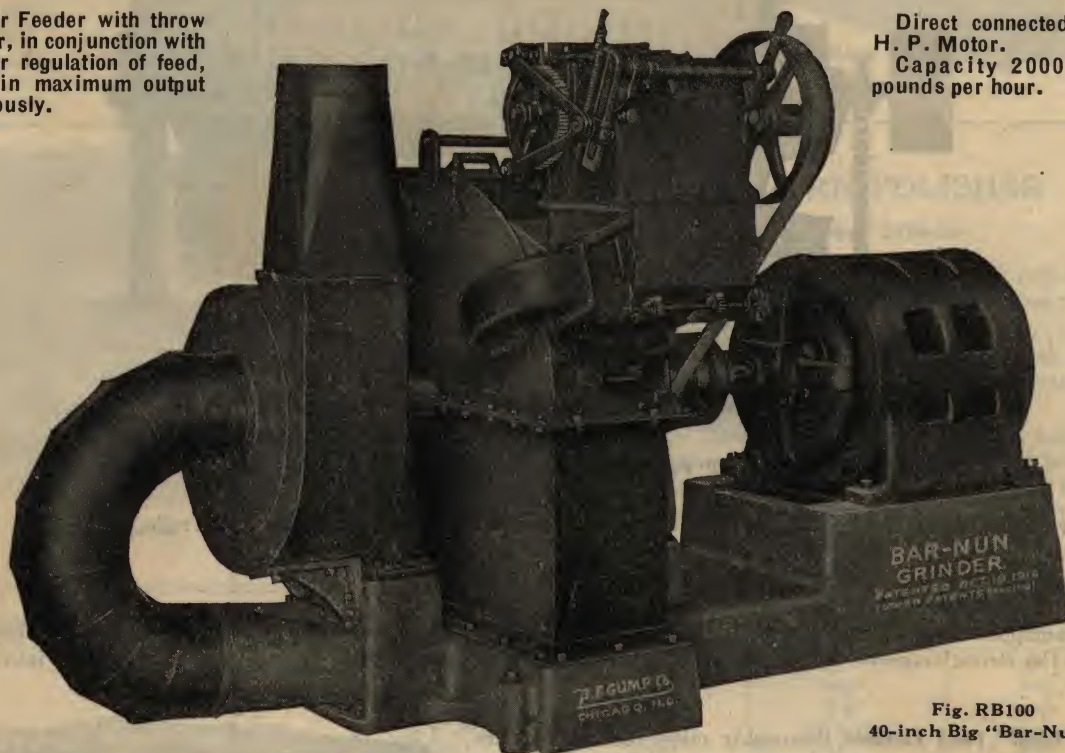
The 40-inch Big "Bar-Nun" is the latest development in Hammer Mills. It is of thoroughly modern design, with many exclusive features, and represents a new standard to meet the demand for rigidity, accessibility, large capacity and fine grinding with minimum power consumption.

In the Big "Bar-Nun" the feed enters at a point where the corrugated, hardened steel Beaters force it against the

grinding plates in the top half of the mill, beating, cutting and grinding it before reaching the perforated screen in the bottom half of the grinding chamber. This method of handling the stock in the Grinder combined with our Patented Corrugated Beaters is responsible for the large capacity, quality of grind and low per ton cost.

Draver Feeder with throw out lever, in conjunction with Ammeter regulation of feed, results in maximum output continuously.

**Direct connected with 60 H. P. Motor.
Capacity 2000 to 8000 pounds per hour.**



**Fig. RB100
40-inch Big "Bar-Nun"**

Equipped with Heavy Duty **SKF Ball Bearings** that reduce friction to a minimum.

Automatic Expelling Feeder, with air separation, prevents iron, metal, stones, etc., from entering the grinding chamber.

A special adaptation of our "**Draver**" Feeder, with throw out lever, in conjunction with **Ammeter** accurately controls the feed and insures maximum grinding efficiently.

All ground material is exhausted into a special **Cyclone Type Collector**.

The **Screen** can be **changed quickly**, without removing the top, **while machine is running**.

Shipped complete, self contained, as illustrated, together with Collector; **no other equipment is necessary**.

STANDARD DIMENSIONS WITH 60 H. P. MOTOR

Length on floor, over all.....	6' -2 $\frac{3}{4}$ "	Diameter Feed Collector.....	5' -0"
Width on floor, over all.....	4' -1"	Height Feed Collector.....	11' -0"
Extreme length.....	8' -9"	Diameter Outlet Feed Collector.....	2' -4"
Extreme width.....	5' -9"	Diameter Discharge Feed Collector.....	8"
Inlet of Feeder.....	5 $\frac{1}{2}$ "x11 $\frac{1}{4}$ "	Diameter Outlet Pipe on Fan.....	10"
Height to top of Feeder.....	5' -2"	Horse Power.....	60
Floor to Center of Motor Shaft.....	2' -5 $\frac{1}{2}$ "	Speed of Motor, under load.....	1750 R.P.M.
Main Shaft.....	3- $\frac{1}{2}$ "	Shipping Weight (Approx.).....	6415 lbs.
Size Screen.....	11 $\frac{1}{8}$ "x63 $\frac{3}{4}$ "		

As standard equipment we furnish 3 phase, 60 cycle, 220 or 440 volt motors, 1800 R.P.M. We can also furnish 3 phase, 25 cycle, 220 or 440 volt motors, 1500 R.P.M. The dimensions of the latter are different in the length on the floor and in the height from the floor to center of motor shaft.

Write for our special descriptive literature and price

REASONS WHY YOU SHOULD BUY A 40-INCH BIG BAR-NUN

Draver Feeder, with throw out lever accurately controlling amount of feed.

Feed taken into grinding chamber through front and both sides, forcing stock over grinding plates before hitting screen.

Automatic expelling feeder with air separation, preventing iron, metal, stones, etc., from entering grinding chamber, reduces fire risk to the minimum.

Solid cast iron base, requires no special foundation.

Regulation of feed by ammeter mounted on compensator, results in maximum output continuously.

The 40-inch Big "Bar-Nun" is shipped complete including Collector, ready for installation; there are no extras needed, such as conveyors, elevators, counter shafts, etc.



Fig. RB101
40-inch Big "Bar-Nun" with Collector

BAR-NUN BEATERS

Changing the screen without removing the top, while the machine is running, saves much time; an exclusive feature.

Self contained, oil tight, enclosed gear reduction for feeder drive.

Air intake under motor keeps motor clean and cool.

Average time of changing the grinding parts is 30 to 40 minutes.

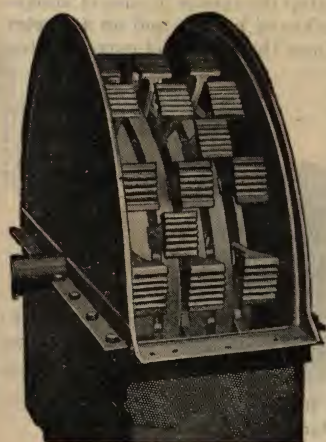


Fig. RB102
Interior, Showing Arrangement
of Beaters



Top Side
Fig. RB103
TEMPERED STEEL,
CORRUGATED BEATERS
(Patented)
THEY CUT, GRIND
AND HAMMER

REPLACEMENT PARTS FOR 40-INCH BIG BAR-NUN GRINDER

Number	Name of Part	Net Price
80-108	Set (11) top plates or cross bars with one large bar, bolts and nuts.....	\$ 20.00
	(Top plate, only \$1.60 ea. Large bar only \$2.50 ea.)	
69-70-71	Set (44) corrugated beaters and four (4) flat bar beaters complete.....	90.00
70-71	Set (4) flat bar beaters, with arms (regular).....	15.00
71	Set (4) flat bar beaters, no arms (regular).....	7.50
70	Set (8) arms only for flat bar beaters (regular).....	10.00
67-68	Set (24) pins for beaters with collars.....	20.00
67	Set (24) pins only for beaters, no collars.....	14.00
68	Set (24) collars only for beater pins.....	6.00
73	Screens (regular) size of openings 1-20, 3-64, 4-64, 5-64, 6-64, 7-64, 1-8, 5-32, 3-16, 1-4 each.....	3.75
75-76	Set (2) screen groove or slides.....	40.00
108	Screen stop bar.....	2.50
90-111	Set (2) screen holder covers.....	8.00
28	Ball bearing.....	30.00
11A	Fan complete.....	80.00
11	Fan runner only.....	30.00
14	Fan scroll sheet only.....	6.00
14A	Fan case, complete.....	65.00
44A	Flexible coupling, complete.....	50.00
102	Feeder support or throat (no gates).....	75.00
107	Handle plate under feeder, complete with two bars.....	9.75
148	Ratchet wheel for Draver Feeder.....	6.50
167-168	Set (4) pawls for Draver Feeder.....	1.00

20-INCH "BAR-NUN" GRINDER

(Trade Mark Registered U. S. Patent Office)

The Direct Connected "BAR-NUN" reduces power-loss thru friction to the minimum. Full Ball Bearing equipped.

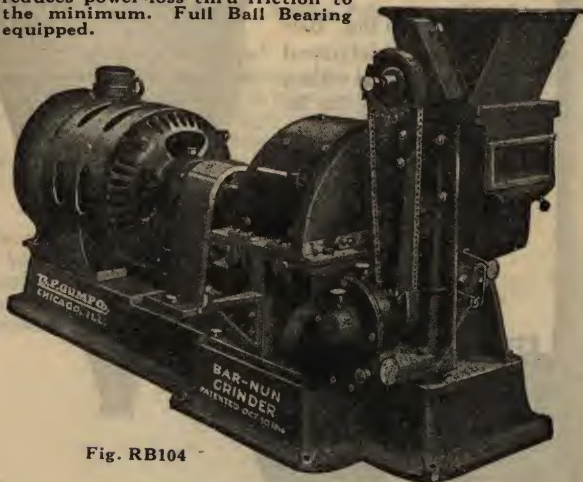


Fig. RB104

Direct Connected "Bar-Nun" Grinder

THE IMPROVED EXPELLING FEEDER is automatic, will feed the material in an even stream and remove all Metal, Iron, Stones, in fact anything heavier than that to be ground. This device alone should recommend the "Bar-Nun" as it prevents any material liable to cause a spark from getting into the grinding chamber. Driven from the grinding shaft by a belt which in turn drives a worm reducing the speed which is transmitted to the feed roll by means of sprockets and chain.

Material to be ground is spouted to the Feed Hopper having a revolving agitator, under which is the feeding roll (two styles—a small corrugation for grain, seeds, etc., a wing type for bran, hulls and other light material) working in conjunction with an adjustable steel slide which regulates the amount of material fed into the grinding chamber.

The "BAR-NUN" delivers a uniformly ground product of soft texture (suitable for molasses and dairy feeds) to any desired fineness with one operation, at low cost per ton of grinding and small up-keep cost.

Equipped with S-K-F Ball Bearings.

Improved Corrugated Steel Beaters.

Made Entirely of Iron and Steel.

Reduces Fire Risk to Minimum.

No Parts to get out of Alignment or Tram.

Requires Little Space. Easily Installed.

Improved Adjustable Automatic Feeding Device.

Capacity 1000 to 3500 pounds per hour according to power used, kind of material and fineness of grind.

THE INSTALLATION, OPERATION AND CONSTRUCTION are the same on both the Belt Driven and Direct connected; the Belt Driven machine has a perforated iron pulley to relieve the air cushion under the belt; the Direct Connected machine is equipped with a flexible coupling, 30 horse power ball bearing motor, alternating current, 3 phase, 60 cycle, 220 or 440 volt as regular equipment, but we can furnish for other phases and cycles on special order; compensator enclosed in steel box, with overload relay coils which break the circuit and stop the motor in case of choke-up in the mill caused by too heavy a feed, and an ammeter with button showing at all times the amount of current being used.



Fig. RB105

Belt Driven "Bar-Nun" Grinder

INSTALLATION

May be according to either arrangement here illustrated.

Fig. RB106 shows Collector receiving all material direct from Grinder Fan. This permits of installation in basement or where only one floor is available.

Fig. RB107—a combined Receiving Hopper and Collector System that is very efficient and desirable where the necessary space can be had. The fan in this case relieves the air pressure on hopper and delivers to collector only the lightest material which is returned to hopper.

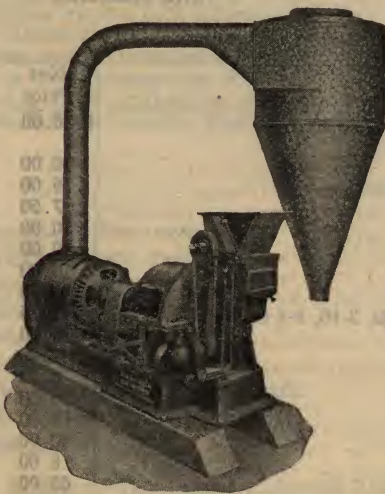


Fig. RB106

20-inch "Bar-Nun" with Collector

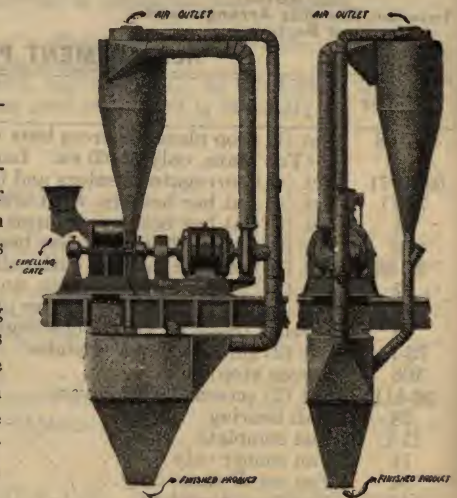


Fig. RB107

20-inch "Bar-Nun" with Collector and Receiving Hopper

Write for Illustrated Circular, Complete Information, Prices and Installation Sketch

20-Inch "BAR-NUN" GRINDER



Fig. RB108

Dimensions

The belt driven and direct connected **"Bar-Nuns"** are constructed alike, the only difference in specifications being in the length, speed and shipping weight.

Length on Floor	Belt Driven.....	40½ inches	Direct Connected.....	64 inches
Extreme Length	“ “.....	62 inches	“ “.....	89 inches
Speed	“ “.....	3000 R.P.M.	“ “.....	3400 R.P.M.
Shipping Weight	“ “.....	2000 lbs.	“ “.....	3100 lbs.
Size Pulley.....	8 inch diam., 6½ inch face.	Size Collecting Hopper (under floor), Fig. RB107.....24x36 inches		
	Horse Power.....	20 to 30		

Dimensions Belt Driven and Direct Connected (Installation Fig. RB107)

Height to top feeder	38½ in.	Outlet in floor	19¾x10 in.	Diameter dust collector	22 in.
Height to top grinder	26 in.	Main Shaft	27½ in.	Air outlet top dust collector	7 in.
Width on floor	30 in.	Size Screen	30x10¼ in.	Air inlet dust collector	15x2½ in.
Extreme width	40 in.	Floor to top dust collector	96 in.	Discharge pipe dust collector	4 in.
Floor to center shaft	15 in.	Bottom hopper to ceiling	68 in.	Exhaust pipe dust collector	6 in.
Inlet. Feed Hopper	11½x8 in.	Height dust collector	72 in.	Size opening bottom hopper	8x8 in.

A collection of mechanical parts and tools. At the top left is a large, curved, textured blade. In the center is a complex assembly with a central shaft and multiple gears. To the right is a large, rectangular, dark-colored block. Below the central assembly is a small cylindrical container labeled 'BARDON'. At the bottom left is a small tool labeled B25. Next to it is a small cross-shaped tool labeled B20. To the right of that is a small, dark, rectangular component labeled B27. Further right is a small, dark, rectangular component with a series of vertical ridges labeled B10. At the bottom right is a small, dark, rectangular component with several small, rectangular protrusions labeled B50.

Weights given NOT boxed for shipment

(B-10)		(B-26)	
1 set corrugated top plates (4 to a set) with 4 long screws, 12 short screws, 16 nuts and 16 lock washers, weight 40 lbs.....	\$11.00	1 set pins for new style beater (16 to a set) with 16 cotter pins, weight 5 lbs., set.....	\$ 7.50
(B-25)		Screens, weight 5 lbs. each.	
1 set new style beaters complete (16 to a set) weight 36 lbs., set.....	30.00	Size of Openings $\frac{3}{64}$, $\frac{1}{16}$, $\frac{5}{64}$, $\frac{3}{32}$, $\frac{7}{64}$, $\frac{1}{8}$, $\frac{9}{64}$, $\frac{5}{32}$, $\frac{3}{16}$, $\frac{7}{32}$, $\frac{1}{4}$, $\frac{5}{16}$, each	1.25
(B-25½)		(B-27)	
1 set new style combination beaters (12 No. B-25 and 3 flat bars), weight 36 lbs., set.....	30.00	1 set cross bars for holding screens (2 to a set) with 4 nuts, weight 5 lbs., set.....	2.75
(B-13)		(B-28)	
1 set (old style) flat bar beaters complete (6 to a set) weight 25 lbs., set.....	12.50	Ball Bearings for mill, weight 5 lbs., each.....	12.00
(B-14)		(B-29)	
1 set (old style) flat bar beater plates only (6 to a set) with 12 bolts, 12 nuts and lock washers, weight 12½ lbs., set.....	8.00	Ball Bearings for motor, weight 2½ lbs., each.....	9.00
(B-15)		Feeder Repairs	
1 set (old style) beater arms only (12 to a set), weight 12½ lbs., set.....	4.50	Worm, H-12.....	\$7.00
		Worm Gear, H-13.....	8.75
		Sleeve Gear, H-14.....	5.75
		Gear Pinion, H-15.....	5.50
		Gear-28 T. ¾ in. bore, H-16.....	6.00
		Gear-28 T. 1 in. bore, H-17.....	6.00
		Sprocket, large, H-24.....	4.50
		Sprocket, small, H-25.....	4.00
		Chain, H-23.....	2.50

Write for Illustrated Circular, complete information, Prices and Sketches

IDEAL CORN MEAL BOLTER AND SCALPING SHOE No. 1

Sieve Size, 24x50 inches—Capacity, 20 to 25 bu. per hour.

For bolting corn meal, graham, spices, ground feeds, or any dry material through medium fine wire cloth. Also used extensively as a scalping shoe for the rough cleaning of grain.

Dimensions, etc. Length, 60 inches; width, 26 inches; height, 38 inches; shaft, 1½x36 inches; pulley, 6x3 inches; shipping weight, 150 pounds; speed, 600 R. P. M.

Net Price, **without bumper**, including wire sieve—14, 16, 18, 20, or 24 mesh, each...\$55.00

Net Price, **with bumper**, including wire sieve—14, 16, 18, 20, or 24 mesh, each..... 77.50

Extra sieve frames, 24x50 inches, without cloth, each..... 5.00

Net Prices for Extra Sieve Frame with Cloth

	Per Sieve
12, 14, 16 or 18 mesh, Tinned Wire Cloth.....	\$6.25
20 mesh, Tinned Wire Cloth.....	6.50
24, 26, 28 or 30 mesh, Tinned Wire Cloth.....	7.00
Stock Sizes of Perforated Zinc.....	8.50



Fig. RB113
(With Single Sieve)

"IDEAL" CORN MEAL AND FEED SCREEN No. 2

(Equipped with Two Sieves and Juby Drive)

Sieve Size, 36x72 inches, capacity 35 to 50 bu. per hour.

Unquestionably the finest sieve bolter, of shaker type, on the market today.

Regularly furnished completely equipped as illustrated with:

Feed Hopper and adjustable, notched steel gate.

Double Set of Sieve Bumpers.

Patented "Juby" Drive, insuring a perfectly balanced back and forth motion.

General Specifications.—Over all length, 82½ inches; width, 54½ inches; height, 37½ inches; pulley, 6x3½ inches; speed, 500 R. P. M.; shipping weight, 475 pounds.

Net Price, with wire cloth not finer than 24 mesh....\$275.00

For finer wire or perforated metal clothing—price on application.

Extra Sieve Frames, without clothing, each. Net.....\$10.00

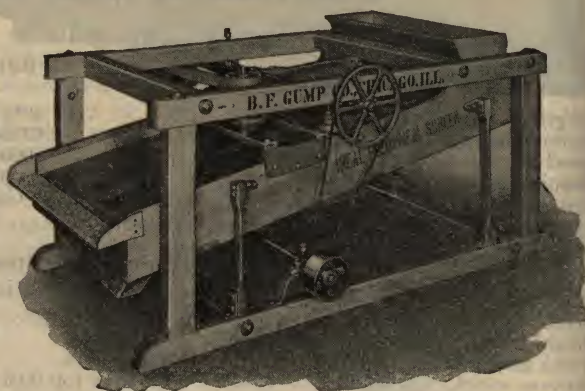


Fig. RB114

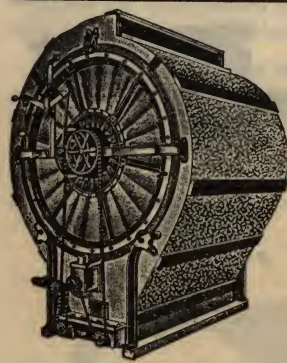


Fig. M184

NIAGARA DUST COLLECTORS

Consists of a series of cloth tubes arranged in a circle, surrounded by an outside casing of galvanized iron. It is virtually two machines in one, as it performs the work of both the cyclone type and all cloth tube dust collectors.

Cloth required for Receiving Separators, Scourers and Corn Cleaners, 3½ square feet of cloth; Milling Separators, 3 square feet of cloth; Oat Clippers, 4½ square feet of cloth; Purifiers, 10 square feet of cloth for each square foot of sieve surface.

SIZES, DIMENSIONS AND NET PRICES—F. O. B. Factory

Size No.	Net Price	SIZE OVER ALL			Size of Inlet	Square Feet of Cloth	Shipping Weight
		Height	Length	Width			
13	\$235.00	7'½"	4'6"	4'11"	5" x 31"	243	1300
14	250.00	7'½"	5'1"	4'11"	5" x 39"	301	1400
15	265.00	7'½"	5'9"	4'11"	5" x 46"	343	1500
16	280.00	7'½"	6'4"	4'11"	5" x 54"	415	1550
17	300.00	7'½"	7'0"	4'11"	5" x 61"	481	1650
21	265.00	7'10"	4'6"	5'9"	6" x 31"	323	1450
22	280.00	7'10"	5'1"	5'9"	6" x 39"	402	1550
23	300.00	7'10"	5'9"	5'9"	6" x 46"	476	1750
24	325.00	7'10"	6'4"	5'9"	6" x 54"	549	1850
25	350.00	7'10"	7'0"	5'9"	6" x 61"	629	1950
26	375.00	7'10"	7'7"	5'9"	6" x 69"	723	2050
27	400.00	7'10"	8'3"	5'9"	6" x 76"	813	2150
31	375.00	9'3"	6'4"	6'9"	7" x 54"	739	2100
32	400.00	9'3"	7'0"	6'9"	7" x 61"	829	2200
33	425.00	9'3"	7'7"	6'9"	7" x 69"	965	2300
34	455.00	9'3"	8'3"	6'9"	7" x 76"	1073	2400
35	485.00	9'3"	8'10"	6'9"	7" x 84"	1180	2500
36	520.00	9'3"	9'6"	6'9"	7" x 91"	1288	2600
45	600.00	9'9"	8'10"	7'6"	8" x 84"	1398	3000
46	675.00	9'9"	9'6"	7'6"	8" x 91"	1514	3150

SPEED.—24 R.P.M. on All Sizes. Drive Pulleys.—Nos. 13 to 27—18x2½. Nos. 31 to 46—18x3½.

"IDEAL" CENTRIFUGAL REEL

With Improved Enclosed Gear-Case—Gears Run in Oil

Has Improved Enclosed Gear-Case with heavy Differential Gears, which run in oil similar to automobile differentials, at a ratio of five to one, taking the place of chain-sprocket, spur gears and other methods for obtaining a Differential in speed.

The Cylinder is strong and well made; head and tail of cast iron, angle-steel ribs, wood filled and steel hoops, cloth wrapped.

The tail end is sectional, each provided with a pocket, and the sections can be easily removed, thus converting it into an open or closed end reel.

The beaters as regularly furnished are entirely of metal. The Beater and Cylinder shaft are mounted on separate bearings, do not touch at any point and cannot stick. Adjustable iron spiders with steel ribs and adjustable finger strips enable the operator to increase or retard the speed of stock, control the bolting throughout the entire length of the cylinder and produce desired result.

We can furnish Brushes in place of steel beaters at a slight advance in price when desired.

Cast Iron Conveyor Ends, equipped with chain adjustments, Revolving Outside Brush, with adjustments at both ends allow perfect cloth contact.

No Other Reel Has All These Features



Fig. RB112
Ideal Centrifugal Reel;
Gears Run in Oil

SIZES, DIMENSIONS AND NET PRICES

Size No.	Size of Frame			Length Overall	Size of Reel	Height to Center of Pulley	Size Pulley	Speed	Shipping Weight Lbs.	Net Price
	Length	Width	Height							
2	8'6"	2'5"	4'0"	10'3"	20"x7'	33 1/4"	12x4"	240	1120	\$425.00
4	9'6"	2'11"	4'8"	11'3"	26"x8'	37 1/2"	16x4 1/2"	180	1400	495.00
6	9'8"	3'5"	5'1"	11'6"	32"x8'	42"	20x5"	150	1900	550.00

ROUND AND HEXAGON REELS

For Bolting or Scalping

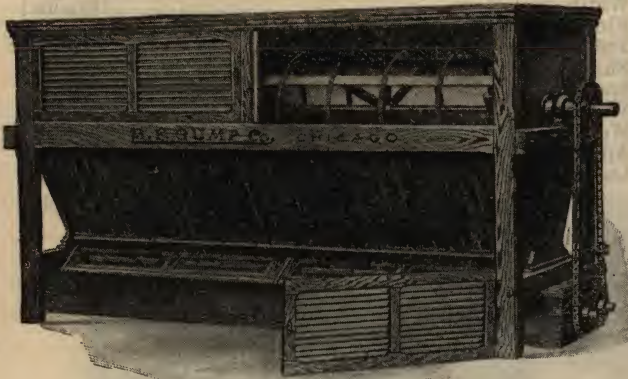


Fig. RB138
Round Reel Scalper



Fig. RB140
Hexagon Scalping Reel

These machines are used for various purposes, bolting or scalping. Furnished regularly with wooden flight conveyors, either single or double. When desired can be furnished steel lined and with steel conveyors at an additional price.

SIZES, DIMENSIONS, SPEEDS AND NET PRICES

Size No.	Size Reel Ft. In.	Size of Frame			Size of Pulley Inches	Speed R.P.M.		Round or Hex. Reel		Extra for Cross Shaft Drive
		Length Ft. In.	Width Ft. In.	Height Ft. In.		Pulley Drive	Gear Drive	Price Single Conve.	Price Double Conve.	
1	20x7	8-6	2-5	4-0	16x3 1/2	42	126	\$261.25	\$288.75	\$34.00
2	26x8	9-6	2-11	4-8	18x4 1/2	32	96	330.00	357.00	44.00
3	32x8	9-8	3-5	5-1	20x5 1/2	28	84	385.00	412.00	55.00

"VIBROX" PACKER—SAVES BURLAP

(Trade Mark Reg. U. S. Pat. Off.)

Vibrates and Rocks—Packs as It Fills

"Vibrox" Packers can be used for packing:

Dairy Feed
Dairy Mashers
Poultry Mashers

Cotton Seed Meal
Molasses Feed—Linseed Meal
Alfalfa Meal

and all other kinds of soft feed and similar materials.

The Vibrox works automatically, packing the feed as rapidly as it drops into the sack, so that on a continuous dump from the automatic scale or spout, the sack is completely packed by the time the dump is completed. It compacts the materials to less volume than has heretofore been possible in commercial practice.

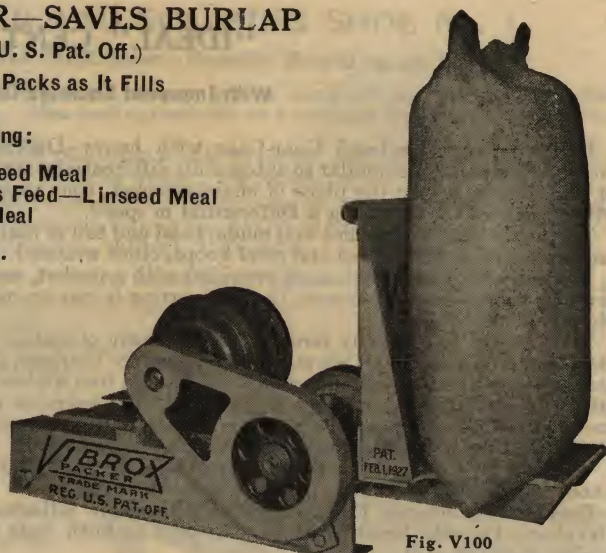


Fig. V100

Showing Motor Driven Machine. Also supplied for Belt Drive

Requiring none of the operator's time or energy to pack the bag, no helper will be required between the packer and the sack sewer. Thus, two men can do more work with greater ease when using the "Vibrox" Packer than three men have been able to do heretofore.

The "VIBROX" will not only pay for itself in an incredibly short time but will continue, year after year, to pay big dividends on the initial investment.

General Specifications Single Vibrox, Either Motor or Belt Driven.

Length over all.....	42 ins.
Width over all.....	25 ins.
Height over all.....	33 ins.
Height of platform from floor.....	7 ins.
End of platform to center of shaft.....	19½ ins.
Length of platform.....	13 ins.
Width of platform.....	17½ ins.
Floor to center of pulley.....	7¼ ins.
Pulley.....	10x3 ins.
Shaft diameter.....	2¾ ins.
Speed.....	380 to 500 R.P.M.
Weight crated, belt driven.....	325 lbs.
Weight crated, motor driven*.....	500 lbs.
Approximate horse power.....	1½
Capacity, bags up to.....	150 lbs.

*For standard A.C. Motors 3 Ph. 60 Cy. 220 or 440 Volt.

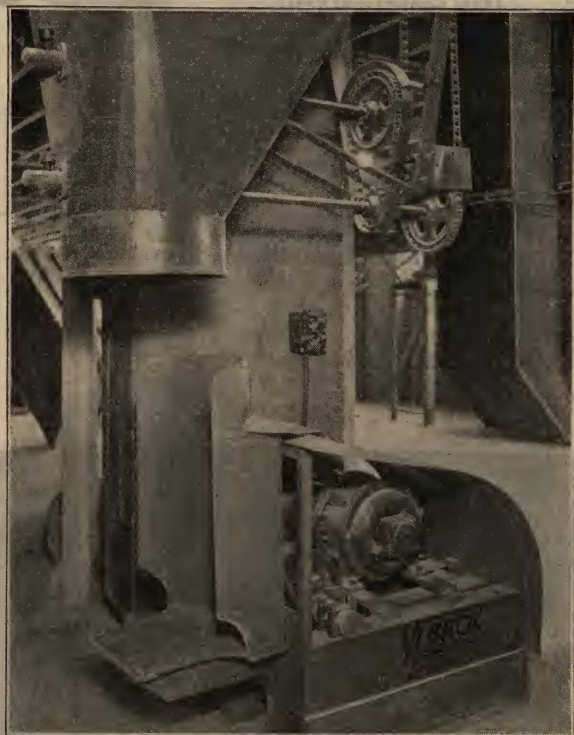


Fig. V101

Showing Vibrox Packer installed under automatic scale—the ideal arrangement

General Specifications Double Vibrox.

Length over all.....	43 ins.
Width over all.....	24 ins.
Height over all.....	36 ins.
Height of platform from floor.....	6 ins.
Length of platform.....	13 ins.
Width of platform.....	13 ins.
Speed, R.P.M.....	380 to 500
Weight crated.....	700 lbs.
Size motor, horse power.....	3
Capacity for two bags, each up to.....	140 lbs.



Fig. V102

The Double Vibrox

The double Vibrox Packer handles two sacks at a time—a concentration of labor and space—performing double duty.

Write for Descriptive Bulletin and Prices

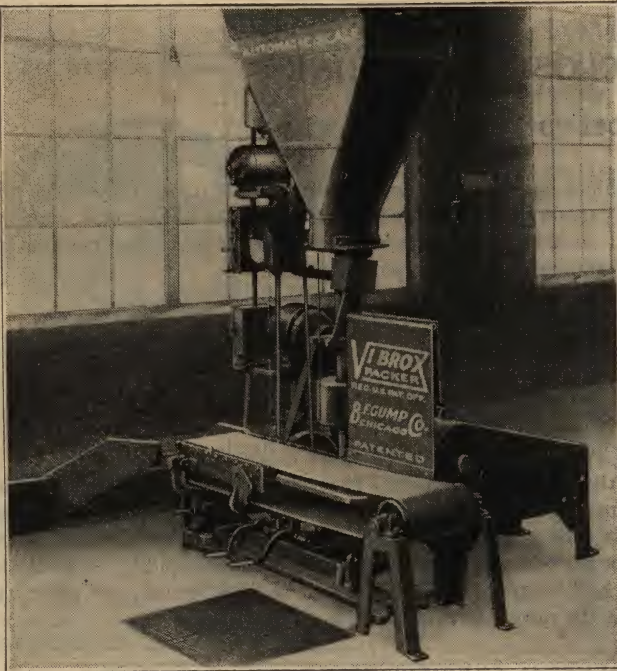


Fig. V103

SPECIAL "VIBROX" ADAPTATION

A "Vibrox" Packer under Automatic Bagging Scale with Belt Conveyor and Bag Closing Machine, as here illustrated, is the last word in Feed Packing Economy.

Note the small space required and the ease with which a single operator can take care of the entire Unit, filling, packing and closing the bags which then slide out of the way through a chute to the floor below.

No doubt a similar installation can conveniently and profitably be located in your plant. Price and full particulars furnished on request.

BARREL PACKER

The "Vibrox" Packer is also made in a Barrel Type suitable for packing any materials that can be compacted by jolting.

Let our Engineering Department help solve your packing problems.

*Let the experience of such leaders as these guide you in the selection of your Feed Packers.
The address of other users near you will be gladly furnished.*

"Referring to the use of the Vibrox Packer in our plant at Toledo, we have, I think, ten of these machines in constant daily operation and after trying out a great many different devices I am glad to state that it is the only machine that we have ever used that does the work in an eminently satisfactory manner and with practically no annoyance or trouble of any kind.

"These machines paid for themselves in our plant, in a saving of burlap alone, in thirty days' time. The saving in labor was as much more."

THE LARROWE MILLING COMPANY (DETROIT)

"We are in receipt of your letter of February 11th, and attach our purchase order No. 3709 covering four more Vibrox Bag Packers, equipped with direct connected motors, same as our previous installation.

"In this connection, you may be interested to learn these machines have revolutionized the size of all of our bags enabling us to make a saving of as much as four inches of burlap in some instances. We, of course, find the saving more effective on the higher price cotton bags.

"Do not see how any feed manufacturer using the 'Slop in' system of filling bags can afford to be without this simple device."

AMERICAN MILLING COMPANY (Peoria, Ill.)



Fig. V104—Showing "VIBROX" PACKER LINE in the Larrowe Milling Co. Plant

ECONOMY BAG CLOSING MACHINE

MODEL "D"

In the past Bag Closing Machines have been designed to fill the requirements of large mills and producers, which necessarily made them expensive. In the Style "D" Economy, however, is offered a simple, strong, and durable machine to suit the needs of small and medium size mills, and which sells at a moderate price.

An Ideal Machine, too, for Emergency Purposes in Large Mills.

The machine is portable, being mounted on 3" castors, and quickly adjustable for sewing all size bags of cotton, burlap, or jute, and in sizes from 2 lbs. to 48 lbs.

A one-fourth horse power motor, vertical type, is used, and the sewing is controlled by a foot switch wired to motor, thus giving the operator free use of both hands.

The "Economy" is truly all that the name implies. It economizes in bag material, as bag manufacturers make sacks for machine sewing from one to two inches shorter than for hand sewing. The saving in twine is even greater, amounting to as much as two-thirds. It is a great labor saver as one operator can pack, weigh, and sew with extreme rapidity, and with the round table, which revolves on ball bearings, and an assistant to pack, weigh, and place bags on table the operator can sew at the rate of twenty 24 lb. sacks per minute.

GENERAL SPECIFICATIONS

Height to top of motor, 61 inches; diameter of table, 32 inches; height from floor to needle, 40 inches; height to top of table at lowest point, 8 inches; shipping weight 465 lbs.

Price with Metropolitan Sewing Head, net F. O. B. Factory.....\$375.00

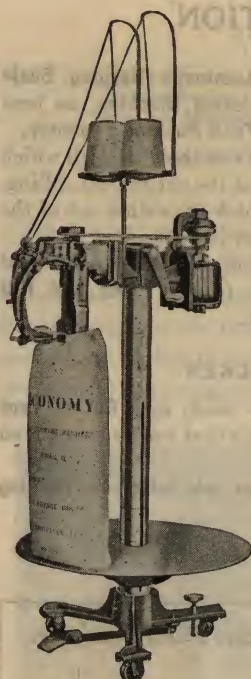


Fig. M113

ECONOMY BAG CLOSING MACHINE

MODEL "C"

The Model "C" Economy Bag Closing Machine is so well and favorably known to the trade that it needs no introductory description.

It is suitable for sewing large feed sacks in molasses and dairy feed mills, as well as all bag closing in flour mills, grain elevators, and warehouses, and for such materials as cotton seed meal, rice, sugar, coffee, in fact any commodity in any sack.

The machine is operated by a one-third horse power motor, with a contact switch, worked by the operator's foot. The sewing head travels across the top of the sack, driven by mechanism in the case attached to the arm just above the base column. This mechanism is geared so that the travel of sewing machine across the sack is in time with the sewing. After sewing across the sack the operator swings the head back to starting position.

A simple locking device makes the sewing head stationary when it is desired to pass through small cotton sacks by hand or on a carrier belt.

GENERAL SPECIFICATIONS

Total height, 60 inches; floor space, 57 inches by 24 inches; height floor to needle, 29 inches minimum, 41 inches maximum; shipping weight, 655 lbs.

Price with Metropolitan Sewing Head, Net F. O. B. Factory.....\$550.00



Fig. M114

Economy Bag Closing Machines are guaranteed constructed in a strong and durable manner and to be adapted to any line of work for which they are sold

RICHARDSON AUTOMATIC MILL SCALES

For Weighing Cleaned Grain After Milling Separator or Before Rolls. Continuous Night and Day Work at Speed of One Weighing per Minute

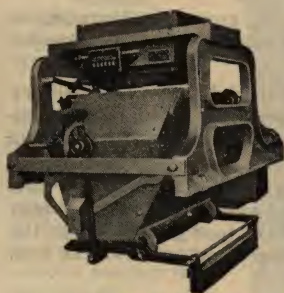


Fig. M103
Mill Scale

These scales are guaranteed to weigh within $\frac{1}{4}$ of 1% of accuracy under proper operating conditions. The grain must be dry, clean and free running and not less than 30 lbs. to the bushel.

In ordering please specify the grain to be weighed, the exact hourly quantity wanted, also if night and day service is required. Orders cannot be filled without this information.

Registration is by means of a 6-figured Continuous Counter which is standard equipment with the Mill Scale.

Weights can be supplied for 60 lbs. for each bushel of hopper capacity. If, however, the scale or scales are used for either corn or oats or one other grain, weights are supplied only for the quantity represented by the number of bushels of the particular grain that the scale is rated to carry. The feed chute opening—the dribble hole and hopper discharge opening are made of special size for accuracy and durability under continuous work.

Scales of 1-bu. capacity and over are suitable for either dry Cleaned Wheat, Corn or Oats— $\frac{1}{2}$ bu. size should be confined to service on Wheat or dry free running grain of similar (or less kernel) size and weight.

Open Type—Internal Levers. Sizes and Net Prices—F. O. B. Factory

Hopper Capacity	Hourly Capacity	Approximate Dimensions			Shipping Weight	Net Price
		Length	Width	Height		
$\frac{1}{2}$ Bu.	30 Bu.	30 $\frac{1}{2}$	24	37	315 lbs.	\$316.00
1 Bu.	60 Bu.	37	30 $\frac{1}{2}$	42	525 lbs.	418.50
2 Bu.	120 Bu.	46	39	55	680 lbs.	450.00
3 Bu.	180 Bu.	46	39	59 $\frac{1}{4}$	1240 lbs.	561.00

RICHARDSON AUTOMATIC GRAIN SCALES

FOR SHIPPING AND TRANSFER

Self-Compensating Type Registering—For Intermittent Work

For all dry-free running grains. Open type—Internal Levers

Sizes and Net Prices—F. O. B. Factory

Hopper Capacity	Maximum Hourly Capacity	Approx. Dimensions			Shipping Weight	Net Price
		Length	Width	Height		
4 Bu.	1000 Bu.	50	39	69	1310 lbs.	\$486.00
5 Bu.	1250 Bu.	50	39	74	1404 lbs.	507.00
6 Bu.	1500 Bu.	57	47	72	1956 lbs.	625.00
8 Bu.	2000 Bu.	57	47	80	2155 lbs.	665.00
10 Bu.	2250 Bu.	57	47	85	2304 lbs.	705.00
12 Bu.	2500 Bu.	72	54	126	3590 lbs.	1475.00
15 Bu.	3000 Bu.	72	54	132	3729 lbs.	1625.00



Fig. M104
Shipping Scale

All scales are complete with combined 6-figure Continuous Counter and with 3-figured Type Registering Set-Back Counter. Prices of larger sizes on application.

RICHARDSON SACKING SCALES FOR FREE RUNNING GRAINS

These PORTABLE scales can be furnished to run on floor from bin to bin, or Overhead Portable to run from bin to bin on track suspended from ceiling.

They are designed to weigh all dry, cleaned, free running grains like Wheat, Corn, Corn Chops, Oats, Barley, Chicken Feed, etc., but can be arranged, At Extra Cost to weigh field seeds like Timothy, Clover, Beans, etc.

These Standard Sacking Scales are of open frame, internal lever type, with sloping hoppers; Adjustable frames (for

height)—roller bearings, wheels, pivoted discharge spout, dribble regulator, sack counter and weights according to the number of pounds of the particular kind of grain to be weighed—the quantity being only limited by the capacity of the grain hopper. These scales are fitted with a heavy grain arrestor to evenly distribute light grains through the sacks, and will operate automatically when weighing packages of 50 lbs. or more.

Guaranteed to weigh within $\frac{1}{8}$ of 1% when evenly fed and, operated according to our instructions.

SIZES AND NET PRICES—F. O. B. Factory.

Hopper Cap. Bu.	Sacks per minute	Approx. Shipping Weight, lbs.	Net Price without extras	Spout Designation	Outside Perimeter of Spout	Height from bottom of spout to Floor	Floor to Top of Chute
With these machines one cast iron spout is furnished, to be chosen from these standards. 2 to 3 bushels.				Standard A	40	33 $\frac{1}{2}$	6'1"
				Standard B	30 $\frac{1}{2}$	32	6'1"
				Standard C	36	32	6'1"
2 to 3	6 to 7	1178	\$500.00				

This machine is furnished with two sheet iron spouts as follows: 2 to 6 bu.

2 to 6	4 to 5	1280	\$600.00
--------	--------	------	----------

Note.—Specify which spout is to be furnished with these scales.

The dimension representing distance from floor to bottom of Sacking Spout governs the height of sack which may be placed below. The sack should be six to ten inches longer than this dimension, allowing for overlap and bulge of sides while the sack still rests on the floor.

Standard D	48"	35 $\frac{1}{2}$ "	7'6"
Standard E	34"	35 $\frac{1}{2}$ "	7'6"

Any other spout than those listed is special and will be quoted on and supplied only after receipt of sample sack.

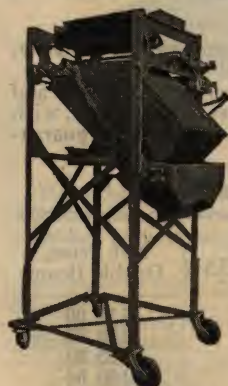


Fig. M105

Portable Sacking Scale



Fig. M106
*Stationary Type

RICHARDSON DRY GROUND FEED SACKING SCALE

Enclosed External Lever Type—Designed to weigh dry ground feeds, products of corn, oats and mixed feeds of similar consistency measuring 20 lbs. or more per bushel.

Speed depends upon the weight per bushel of each material and its consistency as well as the manner in which it is delivered to the scale. Feeds having a tendency to arch should be brought to the scale by means of a screw conveyor having overflow spout as a safeguard.

The stationary scale is equipped with a **spike type agitator** with 12"x2" belt pulley, speed 60 R.P.M. Feeder shaft is fitted with an **automatic throw-out gear** by which the operation of the agitator is stopped when the feed gate closes at the conclusion of each weighing, thereby preventing packing of material on the feed gate.

Scales are of equal balance, enclosed, dustless, external lever pattern and fitted complete with top hopper, hand discharge lever and chain, 6-figured continuous dust and rust proof mechanical sack counter and sacking hopper terminating in a spout to suit customers sacks. (Dimensions of sack, laid flat should be sent in with order.)

SPECIFICATIONS AND NET PRICE—F. O. B. Factory

Hopper Capacity	Sacks per Minute	Approx. Dimensions			Shipping Weight	Net Price
		Length	Width	Height		
100 lbs.	4 to 6	60"	38"	8'3"	1530 lbs.	\$900.00

*Portable Type—Price on application.

RICHARDSON MOLASSES FEED SACKING SCALES

Standard Stationary Type for Molasses Feed, Measuring 20 lbs. and Upward per Bushel

This scale will weigh feed containing not more than 20 per cent of molasses and weighing not less than 20 lbs. per bushel.

The Molasses Feed should be taken to the scale by Elevator or by spiral conveyor with overflow spout. There should be about three feet of spouting between Elevator or conveyor and scale and this should slope at 60 to 70 degrees. The front of the spout should be open as the feed must not be allowed to choke in the feed spout. **Samples of feed should be sent with the order, also samples of empty sacks.** The scale will weigh within 1/2 of a pound to 1 pound of accuracy at speed given on any approved feed. The accuracy varying with the feed itself and the manner in which it is fed.

The machine is of enclosed type with internal levers. There are double spike agitators in the feed hopper and scale throat, also agitators in the sacking spout if specified. The weigh hopper is of non-corrosive metal as is the hopper door, and the pins are of bronze. There is one drive for all feeders and the sprocket of this must be driven at a speed of 100 R.P.M.

SPECIFICATIONS AND NET PRICE—F. O. B. Factory

Hopper Capacity	Type	Sacks per Minute	Approx. Shipping Weight	Net Price
100 lbs.	Internal Lever	4 to 6	1562 lbs.	\$1075.00

This machine has no counter. **Send samples of feed and sample sacks with each order.**

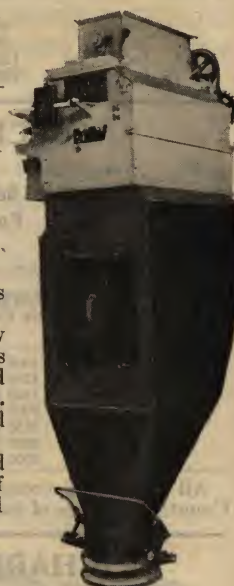


Fig. M107
Molasses Feed Sacking Scale

GUMP'S DORMANT HOPPER SCALE

Highest Quality Construction and Finish

The beam is marked in 1/2-pound marks to 110 pounds.

Prices do not include hopper. Opening is made, however, and shipped complete, ready to install.

In construction and finish our Dormant Hopper Scales are unexcelled, pivots and bearings are of the best imported tool steel, beams are solid brass, Extra Heavy, with sliding poise, levers and castings, Extra Heavy, and of the latest pattern, and guaranteed first-class in every respect.

NET PRICE (DOUBLE IRON COLUMN)—F. O. B. Factory

Number	Capacity, Bushels	Capacity, Pounds	Platform, Inches	Net Price, Double Beam
113	40	2400	36x37	\$110.00
114	60	3000	42x44	130.00
115	100	6000	44x53	165.00
116	125	7500	44x53	180.00
117	150	9000	44x53	195.00

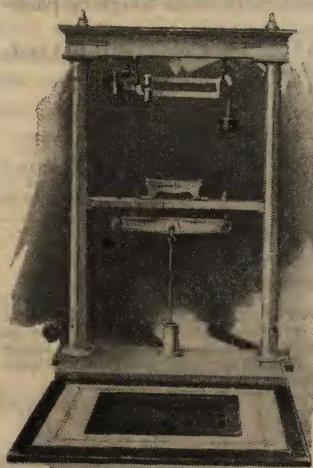


Fig. M108

"MILLERS PRIDE"**Portable
Platform Scales
Single or Double
Beam Ball Bearing**

Made in sizes with capacities from 600 to 1,500 lbs. Can be furnished with or without wheels. Warranted to be first-class and guaranteed against imperfections.

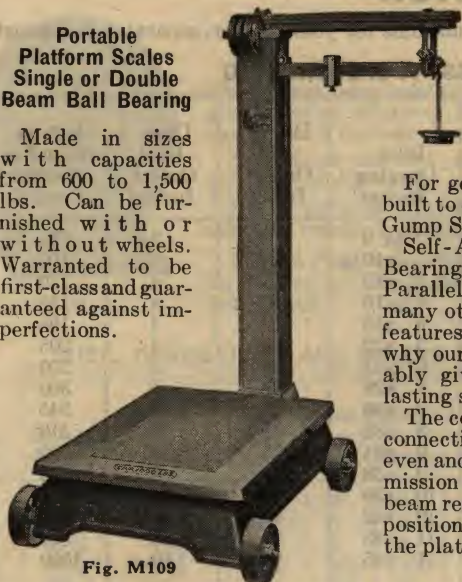


Fig. M109

For general use and built to conform to the Gump Standards.

Self-Aligning Ball Bearings, Pivots in Parallel Planes, and many other important features are reasons why our scales invariably give the user a lasting satisfaction.

The concentric lever connections afford an even and steady transmission of load to the beam regardless of the position of weight on the platform.

SIZES AND NET PRICES

Size No.	Capacity Pounds	Platform Inches	Net Price, Single Beam, with Wheels	Net Price, Single Beam, no Wheels	Net Price, Double Brass Beam, with Wheels
601	600x $\frac{1}{4}$	16 $\frac{1}{2}$ x24 $\frac{1}{2}$	\$16.85	\$16.20	\$24.30
801	800x $\frac{1}{2}$	17 x25	19.15	18.50	27.70
1001	1000x $\frac{1}{2}$	18 x26	20.10	19.25	28.80
1201	1200x $\frac{1}{2}$	18 $\frac{1}{2}$ x26 $\frac{1}{2}$	22.30	21.65	29.95
1501	1500x $\frac{1}{2}$	18 $\frac{1}{2}$ x26 $\frac{1}{2}$	23.80	23.15	31.45

Extra for Bag Rack, on all sizes, \$3.50

"RELIABLE" GRAIN SCALES**Furnished with Single Brass
Beam, Plain Bearing**

Made in sizes with capacities from 1,000 to 1,800 lbs. Furnished with or without wheels. Especially designed for flour mills, feed stores, etc.

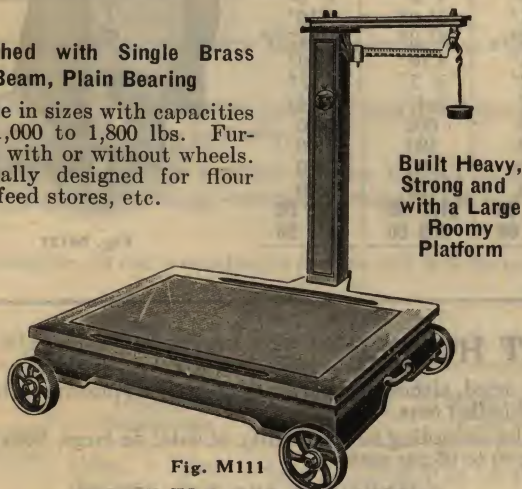


Fig. M111

Built Heavy,
Strong and
with a Large
Roomy
Platform

Has a large platform and is built from heavy material to withstand severe strain and heavy duty. In ordering state whether with or without wheels.

SIZES AND NET PRICES

Size	Capacity, Pounds	Platform, Inches	Net Price, with Wheels	Net Price, no Wheels
59	1000x $\frac{1}{2}$	32x42	\$73.80	\$69.80
60	1200x $\frac{1}{2}$	33x43	78.80	74.80
61	1800x $\frac{1}{2}$	33x43	87.90	83.90

"ALWAYS READY"**Weightless
Double Beam
Platform Scales
Ball Bearing**

Made in sizes with capacities from 600 to 1,200 lbs.

Furnished with double beam only, with or without wheels. A strong reliable scale which never fails to please.



Fig. M110

The "Always Ready" type of scale is of the same general construction as the "Miller's Pride" except is equipped with a double, weightless beam mounted above the cap. There are no weights to lose and the beam registers full capacity of scale.

The upper bar is marked in one-half pound marks to 100 pounds, and the lower bar is graduated and notched in 100-pound notches to the full capacity.

SIZES AND NET PRICES

Size No.	Capacity, Pounds	Platform, Inches	Net Price, with Wheels	Net Price, no Wheels
603	600x $\frac{1}{2}$	16 $\frac{1}{2}$ x24 $\frac{1}{2}$	\$25.85	\$24.80
803	800x $\frac{1}{2}$	17 x25	28.70	27.65
1003	1000x $\frac{1}{2}$	18 x26	30.27	29.20
1203	1200x $\frac{1}{2}$	18 $\frac{1}{2}$ x26 $\frac{1}{2}$	33.65	32.60

Extra for Bag Rack, on all sizes, \$3.50

**GUMP'S DORMANT WAREHOUSE
SCALES**

In places where a large amount of weighing is done in one spot, and especially where goods are handled on trucks, Scales set with platform level with the floor are very convenient.

The levers and castings of our Dormant Scale are all made extra heavy. The beams are solid brass with sliding poise. Pivots and bearings throughout are of the best imported tool steel, carefully tempered. Guaranteed first-class in every respect.

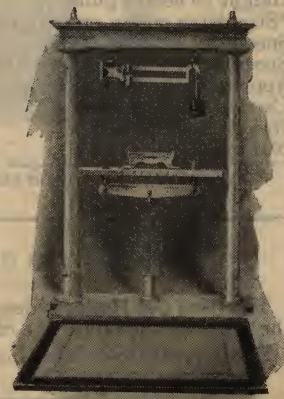


Fig. M112

NET PRICES, DOUBLE IRON PILLAR AND CAP

Size	Capacity, Pounds	Platform, Inches	Net Price, Double Beam
91	2500x $\frac{1}{2}$	36x37	\$105.00
92	3500x $\frac{1}{2}$	42x44	125.00
93	5000x $\frac{1}{2}$	44x53	160.00

GUMP'S DUST COLLECTOR

Makes an almost complete separation without a back pressure. Just the machine for your purifier, separator or exhaust system.

SIZES AND NET PRICES—F. O. B. CHICAGO



Fig. RB109

Size	Net Price	Total Height	Outside Diam.	Inlet Opening Inches	Diam. Air Outlet Inches	Diam. Dust Outlet Inches	Approx. Shipping Weight Pounds
0	\$33.65	3' 6"	1' 8"	2½ x 9	8½	3	85
1	38.25	4' 3"	2' 0"	3 x 10½	10	3	100
2	42.85	5' 0"	2' 4"	4 x 12	13	4	120
3	48.95	6' 0"	2' 8"	4½ x 16	15	4	135
4	56.60	6' 10"	3' 0"	5 x 18	17	4	165
5	67.30	8' 0"	3' 6"	5 x 22	20	4	205
6	78.05	9' 4"	4' 0"	6 x 24	23	5	250
7	88.75	10' 3"	4' 6"	7 x 28	26	5	300
8	100.95	11' 0"	5' 0"	8 x 30	28	6	345
9	113.20	12' 0"	5' 4"	8 x 32	31	7	410
10	125.45	13' 0"	5' 8"	9 x 34	33	8	500
11	140.75	14' 0"	6' 0"	9 x 38	36	9	570
12	156.05	15' 0"	6' 4"	10 x 39	39	10	660
13	174.40	16' 0"	6' 10"	10 x 42	42	10	780
14	191.25	17' 0"	7' 2"	11 x 43	44	10	890
15	214.20	18' 0"	7' 6"	11 x 45	46	10	1000

"NIAGARA" CENTRIFUGAL DISC ASPIRATOR

Primarily designed for aspirating hominy and grits, but makes an ideal separation of hulls from hulled oat groats and rice or on any material where aspiration is effective.

By fitting upright shaft with steel beaters it makes an excellent finishing machine for wheat before going to rolls, removing red branny stock, loose germ, etc., that have not been removed by cleaners.

SIZES AND NET PRICES F. O. B. FACTORY

SIZE	16" Single	20" Single	24" Single	30" Single	30" Double
Extreme height.....	4' 10"	5' 10"	6' 6"	7' 2"	7' 6"
Extreme width.....	2' 8"	3' 0"	3' 8"	4' 2"	8' 6"
Extreme length.....	3' 10"	4' 3"	4' 7"	5' 0"	5' 10"
Size on floor (square).....	2' 1"	2' 4"	2' 7"	3' 3"	3' 3" x 7' 5"
Height to feed.....	3' 2"	3' 10"	4' 4"	4' 10"	4' 10"
Height to center pulley.....	3' 11"	4' 7"	5' 2"	5' 7"	5' 7"
*Size drive pulley on fan, inches...	6x3¾	6x4¼	8x3¾	8x4¼	8x4¾
Speed drive pulley on fan.....	600	600	600	600	600
Speed drive pulley, asp. without fan	120	120	100	100	100
Approximate shipping weight, lbs..	500	700	800	1000	1650
Capacity per hour (bu.).....	40	60	90	130	260
Net price (without fan).....	\$130.00	\$140.00	\$150.00	\$170.00	\$340.00
Net price (with fan).....	165.00	170.00	185.00	205.00	375.00

*Size drive pulley, aspirators without fans, all sizes, 12x2½".



Fig. M127

THE ROSS OAT HULLER

The Ross Oat Huller is designed for hulling oats not artificially dried, although the freer they are from moisture, the finer the product, the larger the capacity and the higher percentage of hulled oats.

The percentage of hulled oats, once through the machine, varies according to the quality of oats; on large, heavy, dry oats averaging 90 to 95 per cent.

DIMENSIONS AND NET PRICES



Fig. M128

Capacity, Oats per Hour, lbs.....	500 to 1000
Speed R.P.M.....	1820
H.P.....	3 to 5
Size Pulley.....	6x4
Extreme Length, inches.....	46
Length on Floor, inches.....	28¾
Extreme Width, inches.....	16½
Width on Floor, inches.....	16½
Height, inches.....	18½
Shipping Weight, lbs.....	350
Price—Net Ball Bearing, F. O. B. Chicago.....	\$350.00

BUFFALO VOLUME FANS

BALL BEARING

Buffalo Volume Fans are a new development from the "B" Volume Blowers and Exhausters which have been popular for so many years. The Volume Fans are equipped with ball bearings, giving better efficiency, and are adjustable to eight different positions of discharge and to either clockwise or counter clockwise rotation. The one fan can be used as either a blower or exhauster.

Side plates and feet are cast in one piece to permit adjusting the housing to any desired direction of discharge.

Heavy duty, dust-proof ball bearings with deep raceways in both inner and outer rings, insure efficient, trouble-free running.

Volume Fans have the solid peripheral shell construction that made "B" Volume Fans so popular. They are rigid and compact and resist deterioration from moisture, heat, acid fumes, or gritty dust.



Fig. M125

SIZE, DIMENSIONS AND PRICES F. O. B. BUFFALO, ADD 10% FOR CHICAGO DELIVERY

Size No.	Height Inches	Outlet Dia. Outside	Inlet Dia. Outside	Size Pulley		3" S.P. 1.73 oz.			6" S.P. 3.47 oz.			Weight Pounds	Net Price
				Dia.	Face	A.P.M.	R.P.M.	H.P.	A.P.M.	R.P.M.	H.P.		
21	13 $\frac{7}{8}$	4 $\frac{1}{2}$	5	3	2 $\frac{1}{2}$	310	3063	.24				65	\$ 28.00
22	17 $\frac{3}{8}$	5 $\frac{1}{2}$	6	4	3	485	2470	.37	685	3463	1.02	110	35.00
23	22 $\frac{3}{8}$	7 $\frac{1}{2}$	8	4	3	821	1885	.63	1160	2665	1.73	165	42.00
24	26 $\frac{1}{8}$	8 $\frac{1}{2}$	9 $\frac{1}{8}$	5 $\frac{3}{4}$	3 $\frac{5}{8}$	1130	1610	.87	1598	2273	2.38	250	56.00
25	30 $\frac{1}{2}$	10	10 $\frac{1}{2}$	5 $\frac{3}{4}$	3 $\frac{5}{8}$	1575	1361	1.21	2225	1924	3.31	350	66.00
26	36 $\frac{1}{2}$	12	12 $\frac{3}{4}$	7 $\frac{1}{2}$	6 $\frac{1}{2}$	2293	1126	1.76	3240	1590	4.82	500	91.00
27	47 $\frac{5}{8}$	16	16 $\frac{3}{4}$	7 $\frac{1}{2}$	6 $\frac{1}{2}$	3880	866	2.98	5490	1224	8.15	880	147.00
*28	54 $\frac{1}{4}$	20	20 $\frac{3}{8}$	9 $\frac{1}{2}$	8 $\frac{3}{4}$	6475	671	4.97	9150	950	13.60	1900	287.00

S. P. is static pressure. A.P.M. is cu. ft. or air per minute.

H.P. is power required to deliver air at pressure given.

*Fan No. 28 Has Ball Bearing Arm but is not reversible.

BUFFALO STEEL PLATE EXHAUST FANS

As indicated by the name, the most common application of this type of fan is for the purpose of exhausting shavings, sawdust and refuse from woodworking machines of all types, also used extensively in cereal mills for roll and elevator suction. They are constructed of heavy steel plate firmly braced with angle iron and guaranteed to their maximum capacity.

These Exhausters have reversible housing, adjustable to either hand and to any direction of discharge.

The bearings are ring oiling type, babbitt lined, five diameters long, adjustable horizontally and self-aligning vertically.

Note.—In ordering always mention whether RIGHT or LEFT HAND fan is desired and style of discharge—bottom horizontal, top horizontal, up or down blast.

The style shown in cut is considered regular and will be sent unless otherwise ordered.

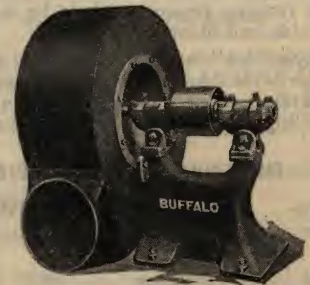


Fig. M126

Right Hand Bottom Horizontal Discharge

SIZES, DIMENSIONS AND PRICES F. O. B. BUFFALO, ADD 10% FOR CHICAGO DELIVERY

Size Inches	Height Inches	Outside Dimensions		Pulley		3" Static Pressure or 1.734 Ounces			6" Static Pressure or 3.460 Ounces			Weight Pounds	Net Price Each
		Diam. Outlet	Diam. Inlet	Dia.	Face	R.P.M.	A.P.M.	H.P.	R.P.M.	A.P.M.	H.P.		
25	26 $\frac{3}{8}$	10"	10	5	4	1555	1540	1.29	2200	2180	3.66	250	\$ 66.00
30	31 $\frac{1}{2}$	12"	12	6	4 $\frac{1}{2}$	1294	2220	1.85	1830	3140	5.23	330	75.00
35	36 $\frac{3}{8}$	14"	14	7	5 $\frac{1}{2}$	1109	3020	2.52	1568	4270	7.12	420	90.00
40	42	16"	16	8	6 $\frac{1}{2}$	972	3940	3.30	1373	5575	9.33	600	120.00
45	46 $\frac{3}{4}$	18"	18	9	7 $\frac{1}{2}$	865	4990	4.17	1223	7060	11.8	800	150.00
50	51 $\frac{1}{2}$	20"	20	10	8 $\frac{1}{2}$	778	6160	5.15	1100	8720	14.6	900	174.00
55	56 $\frac{3}{8}$	22"	22	11	9 $\frac{1}{2}$	707	7460	6.23	1000	10550	17.6	1200	216.00
60	61 $\frac{3}{4}$	24"	24	12	10 $\frac{1}{2}$	648	8870	7.42	915	12550	20.9	1600	270.00
70	70 $\frac{1}{4}$	28"	28	14	11 $\frac{1}{2}$	555	12070	10.1	789	17070	28.5	2200	360.00
80	81	32"	32	16	12 $\frac{1}{2}$	486	15760	13.2	687	22300	37.3	2800	420.00

NIAGARA ELECTRO MAGNETIC SEPARATORS

Styles "A" and "AA"

The increasing demand for finely ground cereals and feed products, necessitating the use of high speed grinders, crushers, and pulverizers, has created a need for a more positive means of eliminating iron and steel particles from the product than heretofore available. Therefore, the new Niagara Electro Magnetic Separators have been developed to meet the needs of this trade.

Unlike other magnetic separators, the Niagara Electro Magnetic has the magnetic field above instead of underneath the product to be separated. This allows the use of more powerful magnet coils, thus insuring a perfect separation of the magnetic from the non-magnetic material.

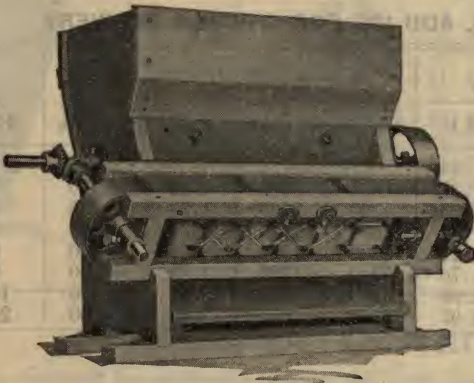


Fig. M129

Styles "A" and "AA"

The style "A" Separator is a complete self-contained unit. An adjustable valve and revolving feed roll distributes the material to be separated, in an even stream, over the inclined plane. As the material flows under the magnetic field all pieces of iron and steel are instantly drawn up to the slow running transverse belt by which they are carried to one side and discharged.

Style "AA" machines are of the same general construction as the Style "A," except that larger and more powerful magnet coils are used, permitting of a steeper incline plane for handling big capacities in small space.

DIMENSIONS, CAPACITIES, PRICES, ETC.

F. O. B. Factory

Size No.	Over All Dimensions In Inches			Capac. per hr. Bushels	Power Consumption Watts	Approx. Weight Pounds	Net Price
	H'ght	L'gth	Width				
2A	32	31	22	70	130	250	\$125.00
3A	32	37	22	120	200	300	150.00
4A	32	42	22	160	260	350	175.00
5A	32	47	22	200	350	425	200.00
6A	32	52	22	250	400	450	225.00
7A	32	58	22	300	450	475	270.00
8A	32	63	22	350	500	550	300.00
30AA	39	48	28	400	375	550	350.00
40AA	39	54	28	600	500	625	425.00
50AA	39	60	28	800	625	700	500.00
60AA	39	66	28	1000	750	775	550.00
70AA	39	72	28	1500	900	875	600.00

Agitator in hopper for non-free flowing grains, Net Extra \$8.00.

Counter Shaft drive (speed 100 r.p.m.) with 12x3½-inch pulley \$10.00.

Drive pulleys Style "A," 9x2½ inches; Style "AA," 12x3½ inches.

Speed all sizes 20 r.p.m. Direct Current at 110-120 volts.

Style "B"

The Style "B" Separator has a magnetic field made up of a series of powerful magnet coils, with transverse carrier belt and means for driving. It is to be placed transversely over any conveyor belt where the speed is not over 250 feet per minute and the material to be separated is not more than 1½ inches thick.

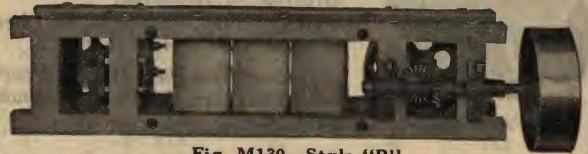


Fig. M130—Style "B"

DIMENSIONS, CAPACITIES, PRICES, ETC. F. O. B. Factory

Size No.	Over All Dimensions In Inches			For Belt Width Ins.	Power Consumption Watts	Approx. Weight Pounds	Net Price
	H'ght	L'gth	Width				
2	12	48	19	10-14	250	400	\$225.00
3	12	54	19	16-20	375	475	275.00
4	12	60	19	22-26	500	550	325.00
5	12	66	19	28-32	625	600	400.00
6	12	72	19	34-36	750	650	475.00
7	12	78	19	36-42	900	700	550.00

Drive pulley 12x3½ inches, speed 20 r.p.m. Direct Current at 110-120 volts.

DIRECT CURRENT GENERATORS For Electro Magnetic Separators

Alternating Current will not successfully operate Electro Magnetic Separators. All our coils are wound for Direct current at 110-120 volts. This voltage must be maintained to obtain satisfactory results from the Separator. The Motor Generating sets and belt driven generators listed below are all compound wound and of the enclosed type, meeting all requirements of Fire Insurance Underwriters, and require no field rheostat.



Fig. M183

Belt Driven Generator
Enclosed Type

BELT DRIVEN GENERATORS

SIZES, CAPACITIES, PRICES, ETC.—F. O. B. Factory

Watts	Speed R.P.M.	Weight Pounds	Net Price
100-150	1750	90	\$42.00
250-300	1750	110	55.00
500	1750	125	80.00
750	1750	200	105.00
1000	1750	225	115.00

MOTOR GENERATING SETS

Generators direct connected to and mounted on same bed plate with 2 or 3 phase 60 cycle motors 110-220 or 440 volts.

Watts	Speed R.P.M.	Weight Pounds	Net Price
100-150	1750	175	\$98.00
250-300	1750	200	120.00
500	1750	210	205.00
750	1750	400	220.00
1000	1750	475	235.00

Same as above for single phase 60 cycle motors 110-220 volts.

Watts	Speed R.P.M.	Weight Pounds	Net Price
100-150	1750	190	\$95.00
250-300	1750	290	130.00
500	1750	350	265.00
750	1750	450	275.00
1000	1750	625	325.00

NIAGARA ELECTRO MAGNETIC SEPARATORS

Style "C"

Style "C" Separator is recommended when a complete separating unit is wanted to handle soft feeds or any light material which does not readily flow.

It consists of feed hopper, powerful magnetic field and short belt conveyor section.

The machine is well and compactly built and guaranteed to remove iron and steel from the product.

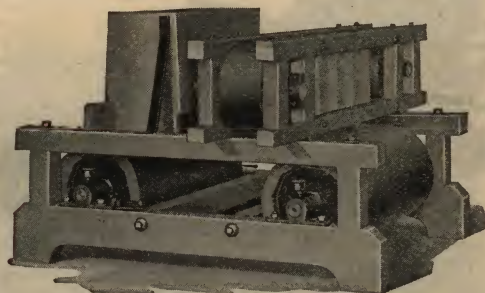


Fig. M131—Style "C"

DIMENSIONS, CAPACITIES, NET PRICES, ETC.—F. O. B. Factory Style "C"

Size No.	Over All Dimensions, in Inches			For Belt Widths Inches	Power Consumption Watts	Capacity per Hour Tons	Approx. Weight Pounds	Net Price
	Height	Length	Width					
12	31	48	50	10-14	250	3	600	\$400.00
13	31	48	56	16-20	375	5	750	450.00
14	31	48	63	22-26	500	7	850	500.00
15	31	48	70	28-32	625	9	1000	550.00
16	31	48	76	34-36	750	11	1200	650.00
17	31	48	82	36-42	900	13	1400	700.00

Drive pulley 12x5 inches, speed 70 r.p.m. Direct Current at 110-120 volts.

NIAGARA ELECTRO SPOUT MAGNETS

While not supposed to take the place of all magnetic separators the Niagara Electro Spout Magnet is, however, very effective in catching pieces of tramp iron, when the pitch of the spout is not more than 35 degrees.



Cut shows
Sizes A, B and
C for shelled
grains.

Sizes D and E for Ear Corn and other coarse lumpy material have coils underneath the spout.

Fig. M132

Magnetic material is collected and held on a suitable electro magnet, which also holds shut a door forming the bottom of the spout. When power is shut off the door automatically opens discharging any iron that may have been collected.

Size "A"—Magnets with lined wood spouts complete 3" to 5 $\frac{3}{4}$ " wide by not over 4 $\frac{3}{4}$ " deep inside measure.

Price net, f.o.b. factory.....\$45.00

Weight 80 lbs. Power required 75 watts.

Size "B"—Magnets with lined wood spouts complete 6" to 10" wide by not over 6" deep inside measure.

Price net, f.o.b. factory.....\$75.00

Weight 90 lbs. Power required 180 watts.

Size "C"—Magnets with lined wood spouts complete 10 $\frac{1}{2}$ " to 14" wide by not over 7" deep inside measure.

Price net, f.o.b. factory.....\$120.00

Weight 190 lbs. Power required, 250 watts.

Size "D"—Magnets with lined wood spouts complete 10 $\frac{1}{2}$ " wide by 6" to 8" deep inside.

Price net, f.o.b. factory.....\$75.00

Weight 100 lbs. Power required 180 watts.

Size "E"—Magnets with lined wood spouts complete 15 $\frac{3}{4}$ " wide by 8" to 12" deep inside.

Price net, f.o.b. factory.....\$120.00

Weight 190 lbs. Power required 200 watts.

Direct current at 110-120 volts is required for all Niagara Electro Magnetic Separators and Spout Magnets.

"IDEAL" MAGNETIC SEPARATORS

SIZES AND NET PRICES—F. O. B. Factory

No.	Size Pulley	Rev. Per Min.	Capacity per Hour Bushels	Weight Lbs.	Length Hopper Inside	Net Price
1	6x2	15	35	150	11 in.	\$ 67.50
2	6x2	15	50	170	15 in.	78.75
3	6x2	20	80	200	21 in.	90.00
4	7x3	20	110	250	27 in.	105.00
5	7x3	20	140	275	33 in.	131.25
6	7x3	20	180	300	39 in.	146.25
7	7x3	25	225	350	45 in.	168.75

Equipped with Stationary Horse Shoe Magnets

Removes iron particles such as nails, bolts, pieces of wire, etc., from the grain, without interfering with the steady flow to the rolls.



Fig. M133



Fig. J100

Showing Juby Drive mounted on Sieve.

There are no troublesome eccentrics to throw oil on the floor, or pound and rack the shaking shoes to pieces. The shaker motion is produced by an entirely new and novel mechanism. This device, the Juby Drive, gives a noiseless and perfectly balanced back and forth motion to the shaking shoe.

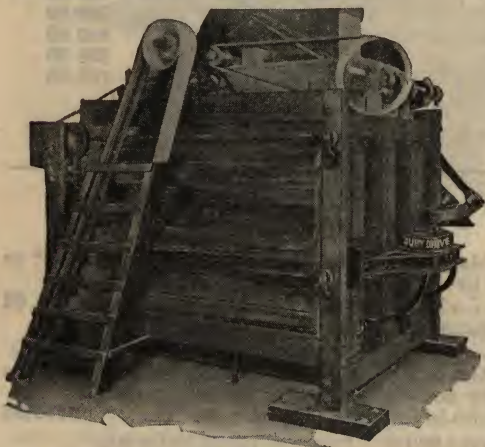


Fig. J102

The Juby Drive has increased the efficiency of this 600 bushel, Three Sieve Milling Separator.

The Juby Drive will increase the life and efficiency of any eccentric driven machine, and being leak-proof and dust-proof it will run for years with little or no attention other than inspection and oiling about once each year.

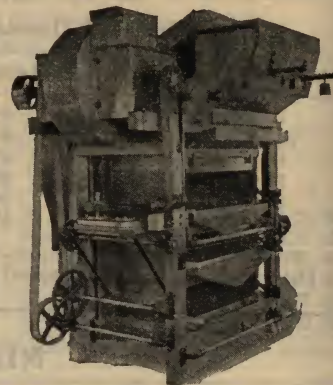


Fig. J101

The Juby Drive can be had on all New Niagara Separators.

A complete Self-contained Unit consists merely of two special machine-cut gears mounted on suitable shafts and bearings held in place by an absolutely dust-proof, cast iron housing, which is partially filled with oil for lubricating all moving parts. The gears weigh alike, run in mesh and are weighted or out of balance for part of their circumference. Their rotation is so timed that at two points these weights neutralize each other, and at two points they produce a kick which gives the back and forth motion to the shaking shoe without any side play.

STANDARD JUBY DRIVES

Size No.	Gears		*Juby Weighted	Ratio	Weight Sieve Box
	Quan.	Diam.			
2A	2	6"	5-lbs.	10 to 1	50-lbs.
2B	2	6"	10-lbs.		100-lbs.
2C	2	6"	15-lbs.		150-lbs.
3A	2	9"	15-lbs.	20 to 1	300-lbs.
3B	2	9"	30-lbs.		600-lbs.
3C	2	9"	50-lbs.		1000-lbs.
3D	2	9"	80-lbs.		1600-lbs.
3E	2	9"	100-lbs.		2000-lbs.
4A	2	12"	30-lbs.	20 to 1	600-lbs.
4B	2	12"	60-lbs.		1200-lbs.
4C	2	12"	90-lbs.		1800-lbs.
10A	4	9"	30-lbs.	20 to 1	600-lbs.
10B	4	9"	60-lbs.		1200-lbs.
10C	4	9"	96-lbs.		1920-lbs.

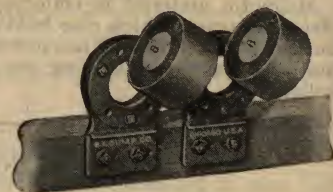
*Weights may be changed to less than shown, which is the maximum the Juby will carry, viz.,— No. 2A with 4-lbs., will shake a sieve box 10 times its weight, or 40 lbs. No. 3A with 12-lbs., 9" gears (ratio 20 to 1) will shake a sieve box weighing 240 lbs., etc.

CONCERNING INSTALLATION.—Owing to the many types and sizes of machines and sieves, it is difficult to indicate the proper Drive without detailed information. Write us, naming the machine used, weight of sieve, throw desired, size of drive shaft, revolutions per minute of drive pulley, and suggestions for the proper installation will be given.

Price and complete information on application.

This drive is no experiment, as it has been thoroughly tried out over a period of years, and we have yet to find an operator who is not more than pleased with the results obtained.

See pages 28, 36 and 49 for other Juby Drive applications.

Fig. J103
Post TypeFig. J104
Sill Type

Shown above are two types of Adjustable Idlers most commonly used and which make it very easy to guide the belt to pulley on vertical shaft of Juby Drive.

(For Idlers for round belt see page 98.)

NIAGARA RECEIVING SEPARATOR WITH JUBY DRIVE

This machine is particularly designed to receive grain into the mill or elevator, as it comes from the farmer's wagon or the freight car. By equipping it with the correct size perforated screens it is capable of handling all kinds of grain and beans.

There are no troublesome eccentrics to throw oil on the floor, or pound and rack the shaking shoes to pieces, as the shaker motion is produced by an entirely new and novel mechanism. This device, known as the "Juby Drive," gives a noiseless and perfectly balanced back and forth motion to the shaking shoe. Besides producing more even and superior grading results, this smooth motion gives considerably greater capacity on the same screening area over screens operated by eccentrics.

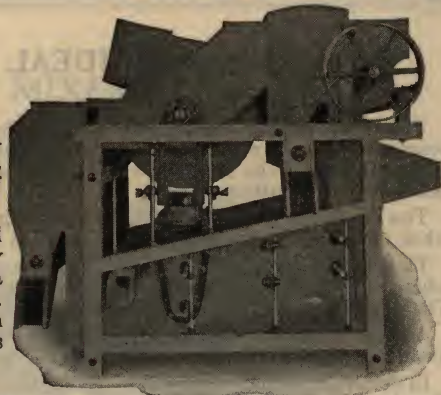


Fig. M134

DIMENSIONS, CAPACITIES, NET PRICES, ETC., F. O. B. Factory

Size Numbers.....	00	0	1	2	3	4	5	6	7	8	9
Extreme Height.....	5'9"	6'2"	6'2"	6'8"	6'9"	7'3"	7'6"	7'6"	8'0"	8'0"	8'0"
Extreme Length.....	6'4"	6'10"	6'10"	7'4"	7'10"	8'8"	9'6"	9'6"	9'6"	10'7"	10'7"
Extreme Width.....	4'8"	4'8"	5'2"	5'5"	6'2"	7'6"	8'0"	8'0"	8'0"	9'3"	9'9"
Length on Floor.....	4'9"	5'2"	5'2"	5'4"	5'6"	6'4"	6'9"	6'9"	7'9"	8'0"	8'0"
Width on Floor.....	3'4"	3'4"	4'0"	4'4"	5'0"	5'6"	6'2"	6'8"	6'8"	7'8"	8'4"
Height to where grain enters.....	5'4"	5'8"	5'8"	6'4"	6'5"	6'9"	7'0"	7'0"	7'5"	7'5"	7'5"
Height to center of driving pulley.....	4'0"	4'2"	4'2"	4'6"	4'6"	4'7"	5'0"	5'0"	5'6"	5'6"	5'6"
Revolutions per minute fan (driving shaft).....	700	700	700	600	600	600	600	600	600	600	600
Size driving pulley.....	8"x5"	9"x6"	9"x6"	10"x6"	10"x6"	12"x6"	12"x6"	14"x6"	14"x6"	16"x7"	16"x7"
Capacity per hour in bushels wheat—fine screens.....	30	60	120	180	300	450	600	750	900	1050	1200
Capacity per hour in bushels wheat—medium screens.....	50	100	200	300	500	750	1000	1250	1500	1750	2000
Capacity per hour in bushels wheat—coarse screens.....	100	200	400	600	1000	1500	2000	2500	3000	3500	4000
Capacity per hour in bushels corn and oats—coarse screens.....	75	150	300	450	750	1200	1500	2000	2500	3000	3500
Approximate horse power required.....	1½	2	2½	3	3½	4	5	6	7	8	9
Approximate domestic weight in lbs.....	1100	1200	1400	1700	2200	2800	3100	3300	4100	4600	5600
Net Price.....	\$275.00	\$300.00	\$350.00	\$400.00	\$500.00	\$600.00	\$700.00	\$800.00	\$900.00	\$1000.00	\$1100.00
Extra Ball Bearing fan shaft.....	25.00	35.00	35.00	35.00	50.00	50.00	60.00	60.00	60.00	70.00	70.00
Extra for One Sieve Cleaner.....	25.00	25.00	25.00	30.00	35.00	40.00	45.00	50.00	50.00	60.00	65.00
Extra for Two Sieve Cleaners.....	35.00	35.00	35.00	45.00	50.00	60.00	65.00	70.00	70.00	80.00	85.00
Inside Dimensions:											
Fan Openings depth (each fan).....	10"	12½"	12½"	14"	14"	14"	16"	16"	16"	16"	16"
Fan Openings width (each fan).....	10"	10"	10"	14"	14"	9"	9"	9"	10"	13"	13"

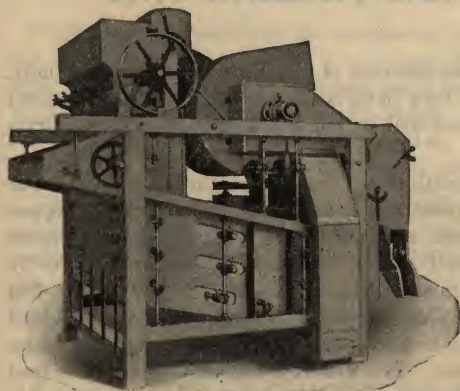


Fig. M135

NIAGARA CRACKED CORN SEPARATOR AND GRADER WITH JUBY DRIVE

The Niagara Improved Cracked Corn Grader and Cleaner possesses many mechanical features which are novel and new.

The separations are all that could be desired, making three perfectly clean grades of cracked corn and removing separately the meal, flour, whole kernels, bran and hulls.

There are four screens, interchangeable and removable, with automatic brush cleaners under all screens.

The shaker motion is produced by our patented "Juby Drive." This gives a silent, perfectly balanced back and forth motion to shaking shoe, giving superior grading results and greater capacity per square foot of screen area.

DIMENSIONS, CAPACITIES, NET PRICES, ETC., F. O. B. Factory

Size Numbers.....	0	1	2	3	4	5	6	7	8	9
Extreme Height.....	6'8"	6'8"	7'8"	8'0"	8'8"	9'6"	9'6"	9'6"	9'6"	10'6"
Extreme Length.....	7'9"	7'9"	8'2"	8'8"	9'2"	10'9"	11'0"	11'0"	11'0"	12'0"
Extreme width.....	4'4"	4'10"	5'4"	6'0"	6'10"	7'4"	7'10"	8'4"	8'10"	9'6"
Length on floor.....	5'0"	5'0"	5'2"	5'4"	5'4"	7'0"	7'0"	7'0"	7'0"	8'6"
Width on floor.....	3'4"	3'10"	4'4"	4'11"	5'6"	6'2"	6'8"	7'2"	7'8"	8'4"
Height to feed intake.....	6'8"	6'8"	7'4"	7'8"	8'4"	9'2"	9'2"	9'2"	9'2"	10'0"
Height center fan shaft.....	5'	5'	5'	5'	5'	7'	7'	7'	7'	8'
Speed fan (driving shaft).....	650	650	650	600	600	600	600	600	600	600
Size drive pulley.....	9"x6"	9"x6"	10"x6"	10"x6"	12"x6"	12"x6"	14"x6"	14"x6"	16"x7"	16"x7"
Fan opening width.....	10"	10"	12½"	14"	14"	9"	9"	10"	13"	13"
Fan opening depth.....	12½"	12½"	12½"	14"	14"	16"	16"	16"	16"	16"
Approximate horse power.....	2	2½	3	3½	4	5	6	7	8	9
Approximate shipping weight (lbs.).....	1800	2000	2500	3000	3500	4000	5000	6000	6400	7000
Capacity (bushels).....	40-50	50-75	60-90	90-100	100-125	125-150	150-175	175-200	250-300	300-400
Net Price.....	\$325.00	\$350.00	\$450.00	\$500.00	\$600.00	\$700.00	\$800.00	\$1000.00	\$1200.00	\$1400.00
Extra ball bearings fan shaft.....	35.00	35.00	35.00	50.00	50.00	60.00	60.00	60.00	70.00	70.00
Size Niagara Dust Collector required.....	23	24	25	26	33	34	35	36	45	46

All machines have two fans except Nos. 0 and 4, which have one.

All sizes are equipped with automatic traveling brush cleaners under all screens, including scalper.

IDEAL VERTICAL BATCH MIXER

The **Ideal Vertical Batch Mixer** enables the small feed manufacturer to produce quickly and economically well mixed dry mash, Dairy and Scratch Feeds. This type of mixer has some advantages over the horizontal type, chief among which are the **small space occupied** and its **convenience for custom mixing**.

The discharge is quick and complete so that there is no time lost or any mixing of blends when changing from one customer's mix to another.

The installation is usually made with upper section of mixer extending through to floor above where the various feed materials are weighed or measured up and emptied into the mixer. The discharge spout is convenient bag height above shipping out floor.

A supply hopper and elevator can be furnished to deliver materials to mixer, receiving all the incoming materials and sacking off on the same floor.

In design, materials and workmanship, the **Ideal Vertical Mixer** has no superior. The mixing chamber is cylindrical in shape, of heavy steel construction with welded joints, presenting a perfectly smooth inner surface.

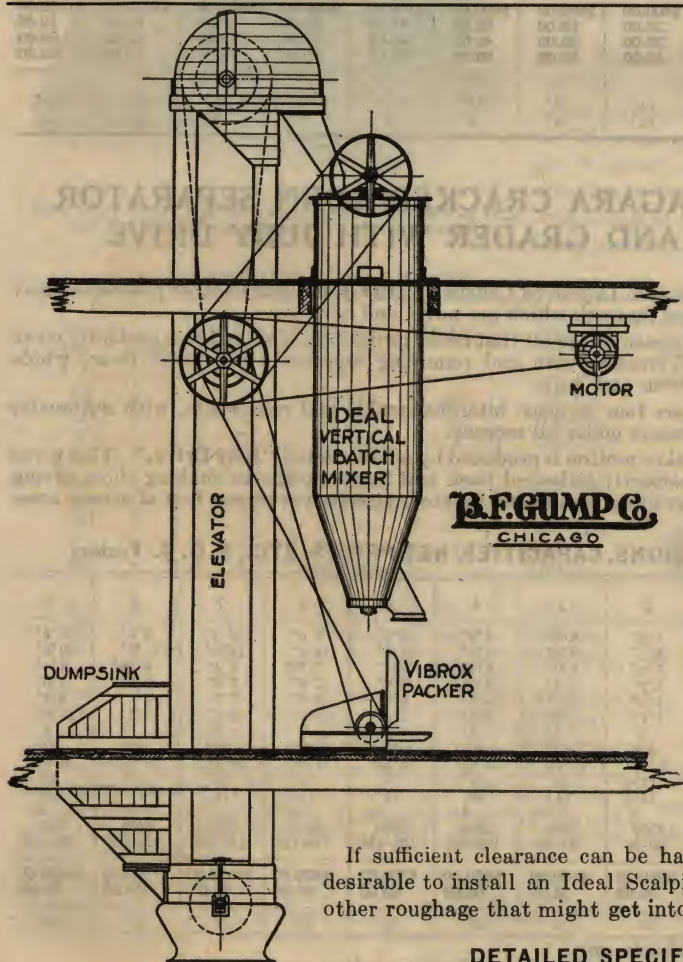
The bottom section is cone shape with discharge through side and provided with cut-off slide and **"Bull-Dog" Bag Holder**. The vertical mixing conveyor and working load is carried on upper bearing and is of an **Improved Ball Thrust Type**.

CAPACITY, DIMENSIONS, NET PRICE, ETC.—F. O. B. Factory

Height Over All Ft. In.	Diam. of Cyl. Inches	Capacity per Charge			Size Pulley Inches	Speed R.P.M.	H. P. Req.		Ship. Wt. Lbs.	Net Price
		Soft Feeds Lbs.	Scratch Feeds Lbs.	Volume Cubic Feet			Soft Feeds	Scratch Feeds		
12 9	34 $\frac{3}{4}$	1250 1700	2000	54	26x6 $\frac{1}{2}$	240	3 $\frac{1}{2}$	5	1250	\$325.00



Fig. RB117



VERTICAL BATCH FEED MIXING AND PACKING UNIT

To those desirous of installing a feed blending unit, yet have very little space available, the arrangement here shown will be found convenient and most practical.

All operations are handled on the main floor. The various materials are dumped into receiving hopper (sink) and a high speed, big capacity elevator quickly delivers the batch into top of mixer. Directly beneath mixer discharge is located a **VIBROX Bag Packer**. This permits of sacking off the finished feed as rapidly as the bags can be filled and replaced by empty ones. The **VIBROX Packer** compacts the feed into minimum size bags resulting in a considerable saving in sack material.

Each unit consists of the following:

- Dump Sink. (To be supplied by customer.)
- Bucket Elevator, high speed type.
- Ideal Vertical Batch Mixer. (Fig. RB117)
- VibroX Packer. (Fig. V100, except pulley drive.)
- Electric Motor 7 $\frac{1}{2}$ to 10 H.P.
- Driving Countershaft, Pulleys, belts, etc.

If sufficient clearance can be had between elevator discharge and top of Mixer it is desirable to install an Ideal Scalping Shoe, at this point, to catch bag strings and any other roughage that might get into the feed.

DETAILED SPECIFICATIONS AND PRICE ON REQUEST

"SUPERIOR" BATCH FEED MIXER

All Metal Construction

The "Superior" Batch Feed Mixer is so constructed that it enables the miller to turn out a wide variety of well mixed dry feeds, easily, quickly, and cheaply. It is built to stand up under long, continuous service. The intake can not clog and quickly admits the charge. There are no shells or pockets in the container where stock may lodge; therefore, it mixes every ounce of the stock perfectly in a short space of time, discharges the mixture completely, and uses less power than any type of mixer we know about.

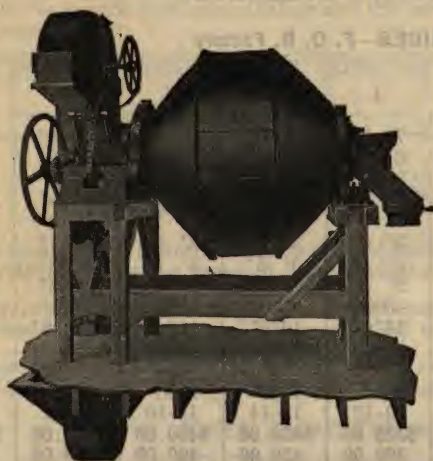


Fig. M166
Showing Standard Mixer with Convenient Wood
Frame Mounting and Supply Elevator

Stock can be loaded into the machine as fast as four men can handle the bags. A few revolutions of the container after it is fully charged is sufficient for a complete mix, no matter what the ingredients of the batch. A ton of stock can be discharged in from 3 to 5 minutes, which is really governed by how fast the product can be sacked off.

The No. 2 heavy duty Mixer differs only in some of the external features and heavier general construction. Also includes the steel frame shown in Fig. M167.

Tight and loose pulleys are regular equipment on all sizes, but mixer will be arranged for motor drive, if desired, at a small additional cost.

Fig. M166 shows a convenient method of installing the No. 1 Mixer in connection with supply elevator. This facilitates the charging, and permits of sacking the finished product direct at discharge spout.

Price of supply elevator and any special arrangement quoted on application.

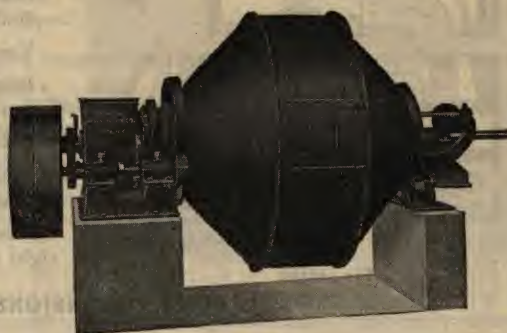


Fig. M165
Style No. 1—Standard

The mixing container is of heavy sheet steel, drum construction, with cast supporting rings attached to each end. These rest on carrier wheels which carry the weight, and on which the drum revolves. Every detail of the construction has been carefully worked out.

Mixing is accomplished by means of a series of agitators inside of the drum, which continuously lift and drop the stock toward the center. This insures a perfect mix, also perfect discharge of the finished batch.

The capacity of all "Superior" Mixers is based on stock weighing 25 pounds to the cubic foot. Most stock runs heavier than this, so it is possible with scratch grains and other heavy stock to mix much more than the rated capacity.

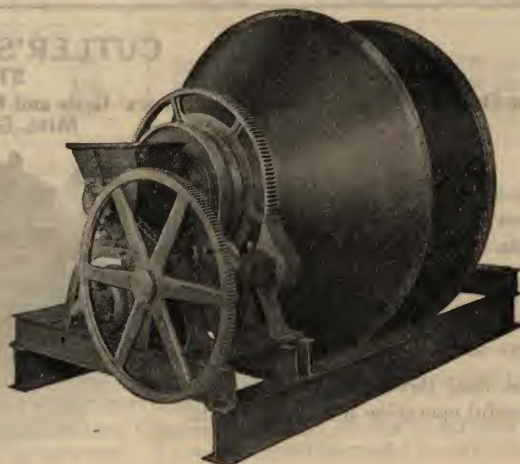


Fig. M167
Style No. 2—Heavy Duty

SIZES, DIMENSIONS, NET PRICES, ETC., F.O.B. FACTORY.

Size No.	Capacity		Dimensions Over All			Req. H. P.	T. & L. Pulleys	Speed R.P.M.	Weight Pounds	Net Price
	Tons	Cu. Ft.	Length	Width	Height					
1A	$\frac{1}{2}$	40	10'6"	5'1 $\frac{1}{2}$ "	6'1"	5	28"x5"	130	2000	\$445.50
1B	$\frac{3}{4}$	60	11'4"	5'7 $\frac{1}{2}$ "	6'4"	5	28"x5"	130	2200	504.00
2A	1	80	10'8"	6'0"	6'2"	5	28"x6"	130	3550	567.00
2B	1 $\frac{1}{4}$	100	12'4"	6'6"	6'5"	7 $\frac{1}{2}$	30"x7"	130	3650	616.50
2C	1 $\frac{1}{2}$	120	13'0"	7'0"	6'8"	7 $\frac{1}{2}$	30"x8"	130	3775	661.50

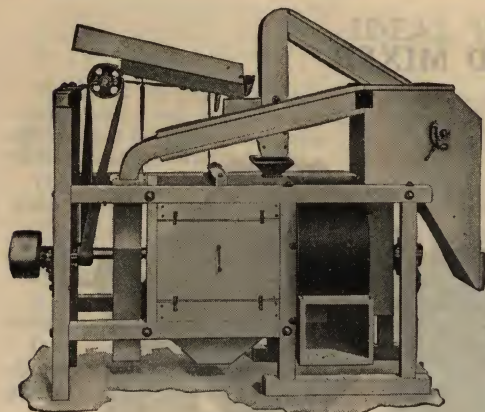


Fig. M100

NIAGARA HORIZONTAL SCOURER

For Wheat, Corn, Rye and Buckwheat

Meeting the requirements of the trade all over the world.

Made externally alike but modified inside and equipped with scouring cylinder and iron case to suit the kind of grain being handled.

Very popular and efficient also as a Hominy Polisher.

Regularly furnished with **ring oil type bearings**, fully exposed and mounted on iron bridgetrees.

Ball Bearings extra at prices shown.

When ordering specify **kind of grain** you wish to scour; also **style of fan discharge**.

Standing facing head or fan end of machine if it is to run over to your right it is **with sun**; if to your left **against sun**.

SIZES, DIMENSIONS AND NET PRICES—F. O. B. Factory

Size No.	1	2	3	4	5	6	7	8
Extreme height (with shoe).....	6' 3"	6' 3"	6' 3"	7' 0"	7' 0"	7' 0"	8' 0"	8' 0"
Extreme height (without shoe).....	5' 9"	5' 9"	5' 10"	6' 9"	6' 9"	6' 9"	7' 6"	7' 6"
Extreme width.....	2' 11"	2' 11"	2' 11"	3' 6"	3' 6"	3' 6"	3' 11"	3' 11"
Extreme length.....	7' 4"	7' 6"	7' 8"	8' 8"	8' 10"	9' 2"	9' 8"	10' 3"
Length on floor.....	5' 9"	5' 11"	6' 1"	7' 1"	7' 3"	7' 7"	7' 10"	8' 4"
Width on floor.....	2' 9"	2' 9"	2' 9"	3' 0"	3' 0"	3' 0"	3' 11"	3' 11"
Height to where grain enters hopper....	4' 4"	4' 4"	4' 4"	5' 5"	5' 5"	5' 5"	5' 8"	5' 8"
Height to center of drive pulley.....	1' 10"	1' 10"	1' 10"	2' 3"	2' 3"	2' 6"	2' 6"	2' 6"
Revolutions per minute.....	600	600	600	500	500	500	400	400
Size driving pulley.....	10"x5"	10"x5"	12"x6"	16"x7"	16"x7"	18"x8"	20"x8"	20"x8"
Capacity per hour (bushels).....	30	45	60	80	100	150	200	250
Approximate shipping weight (lbs.) (domestic).....	1100	1200	1300	1900	2200	2600	2800	3700
Approximate Horse Power.....	4-5	6-7	7-9	9-12	12-14	14-16	16-19	20-25
Net price (with shoe).....	\$225.00	\$250.00	\$275.00	\$325.00	\$400.00	\$450.00	\$500.00	\$550.00
Net price (without shoe).....	200.00	225.00	250.00	300.00	350.00	400.00	450.00	475.00
Net price Ball Bearings extra.....	35.00	35.00	50.00	50.00	60.00	70.00	75.00	90.00
Fan Opening, depth.....	12½	12½	12½	14½	14½	14½	15	15
Fan Opening, width.....	10½	10½	10½	13	13	13	14½	15½

CUTLER'S STEAM DRYER

STEEL FRAME

For Drying Corn Meal, Hominy, Brewers' Grits and Meal, and all Cereal Products, Sand, Coal Dust, Paint, Clay, Mica, Graphite, Ores, Etc.

Used also for Tempering and Heating Wheat and for Sterilizing Cereal Package Goods.

Will dry any Granular Material.

Designed for continuous feed and discharge and for perfect ventilation.

The final development of fifty years successful operation in Cereal Plants.

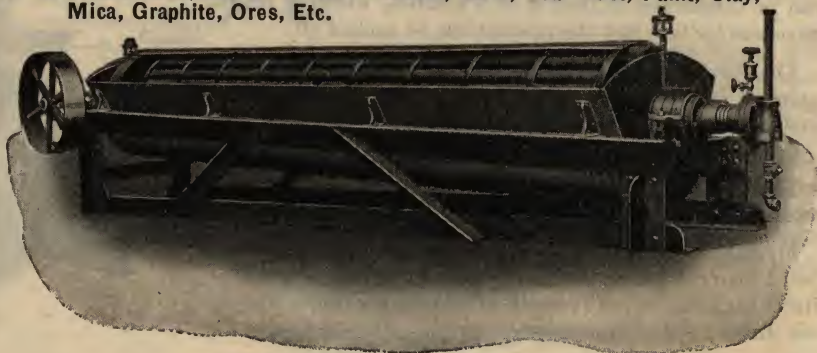


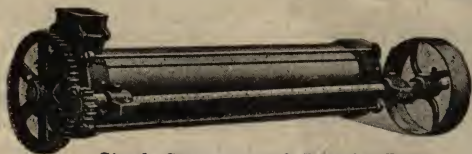
Fig. M147

SIZES, DIMENSIONS AND NET PRICES—F. O. B. Factory

Size No.	Cap. Bu. Meal per Hr. 70 to 100 lbs. Steam Pressure	Horse Power Boiler Required	Horse Power to Drive	Number of Pipes	Length of Pipes Feet	Size Supply Pipe Inches	Dimensions Overall			Shipping Weight Pounds	Size Drive Pulley Inches	Speed Pulley Per Min.	Net Price
							Length	Width	Height				
1	20	8-10	2	16	10	¾	14' 0"	29"	36"	2000	20x4	65	\$402.50
1½	30	10-12	3	24	12	¾	16' 0"	35"	42"	2700	24x5	64	525.00
2	50	10-15	4	34	12	¾	16' 0"	38"	45"	3400	24x5	80	612.50
3	80	15-20	7	52	12	1	16' 7"	48"	51"	5200	30x5	70	875.00
4	120	20-25	12	90	12	1¼	16' 10"	58"	62"	8000	36x7	60	1225.00

"BEALL" CORN STEAMER

Furnished Either Single or Double



Single Steamer with Regular Drive

Can be furnished with iron supports for bottom, top, or side support; also with counter shaft end drive instead of that shown in cut.

Unless otherwise specified we furnish this machine like cut.

Pulley speed all machines—150 R.P.M. Conveyor—45-60 R.P.M.

SIZES AND NET PRICES—F. O. B. Factory

Size	Height Over all Inches	Length Over all Inches	Pulley Ins.	Ship. Weight Lbs.	Capacity Bushel Per Hour	Net Price, Single
0	16	50	10x3	300	10- 25	\$ 75.00
1	16	62	12x3	350	25- 50	85.00
2	16	74	14x3	520	50- 85	100.00
3	16	110	16x6	635	85-120	150.00
4	16	134	18x6	750	120-160	200.00

Double machines at double the single price.

Corn should be properly tempered before it goes to the degerminator. When water is used we recommend the use of the double steamer.

Water can be used in this corn steamer and the corn made as wet as desired.

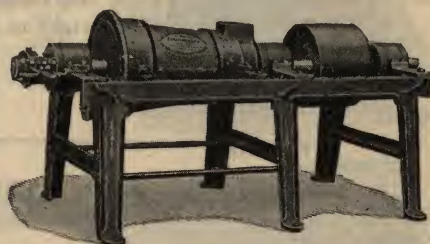
Can be used also for steaming wheat, barley, oat groats, etc.

"BEALL" DEGERMINATOR

Used in corn, cereal, hominy and grits mills to break and hull corn and remove germ therefrom. It is the standard degerminator all over the world.

Meal or other corn products which contain considerable germ spoil more quickly than when made from well degerminated corn.

The degerminator, therefore, is the most important machine in the corn mill. On its work depends the quality of all the corn products made in the mill using it.



SIZES, CAPACITIES AND NET PRICES, F. O. B. Factory

Size No.	Floor Space In.	Height Over All	Length Over All	Height to Driving Shaft Inches	Size Pulley Inches	Speed R.P.M	Capacity per hour Bushels	Shipping Weight Pounds	*Net Price With R. O. Bearings
0	30x34	2'8"	4'6"	26½	10x 9	750	10 to 20	700	\$160.00
1	28x32	2'9"	4'10"	27½	12x 9	750	20 to 40	800	260.00
2	30x58	3'0"	6'4"	25½	15x10	700	40 to 80	1150	360.00

*Machines furnished with Ring Oiling Bearings unless otherwise specified.

Extra for Ball Bearings Nos. 0 and 1—\$60.00. No. 2—\$80.00.



Model "T"

Fig. M101

CLEMENTS-CADILLAC ELECTRIC BLOWER

Keep your plant free from dust and dirt.

Plug into any electric light socket, press the trigger switch and blow out all dust and dirt with a hurricane of clean dry air.

Model "T"—The Standard Clements-Cadillac Blower is suitable for all ordinary cleaning purposes. We recommend this model for all general purpose uses.

Model "U"—Strongest Portable Electric Blower made. Develops 50 per cent more blowing power than the Model "T." Used for the heaviest kind of cleaning.

When ordering give voltage and whether direct or alternating current.

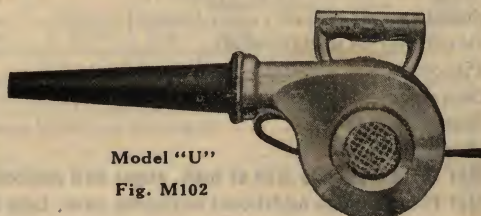
SPECIFICATIONS AND NET PRICES

Model "T"—With 205 Watt Motor, 32 to 275 volts. Weight slightly over 7 lbs., with 20 foot of reinforced cord and armored separable plug. Net.....\$45.00

Model "U"—With one-third H.P. Universal Motor, 100 to 275 volts. Weight slightly over 9 lbs. Equipped with 20 foot of reinforced cord and armored separable plug. Net..\$60.00

Spray Attachment for either Model Blower. Net..... 5.00

(Write for further particulars regarding other attachments and uses.)



Model "U"

Fig. M102

FRICTION CLUTCH FLOUR PACKER

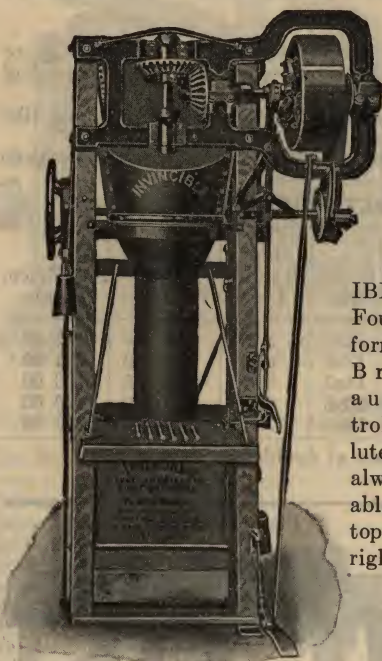


Fig. M180

(Foot Control)

Friction Clutch type with entire action controlled by foot lever. Capacity range from 16th to barrels inclusive. The INVINCIBLE adjustable clutch. Four post frame. Platform—power raised. Brake and throw-out automatically controlled. Bearings absolutely rigid, holding gears always in line. Removable chilled steel plug in top thrust bearing. Either right or left hand drive.

DIMENSIONS AND NET PRICES

Extreme height.....	8 ft. 7½ in.
Extreme width.....	4 ft. 6¾ in.
Height to top of frame.....	8 ft. 2½ in.
Height to center of counter-shaft.....	7 ft. 5¼ in.
Size of drive pulley.....	20x6½ in.
Speed of drive pulley.....	150 R.P.M.
Beveled gear on upright shaft.....	31 teeth.
Pinion on counter-shaft.....	23 teeth.
Shipping weight.....	1450 lbs.

Net Price, with one tube and auger.....	\$220.00
Net Price, extra tube and auger.....	11.25

FRICTION CLUTCH SACK PACKER

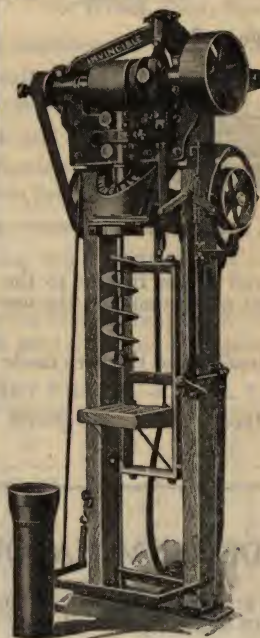


Fig. M181

(Style A)

Designed for small sacks up to and including 24 lb. size. The entire action is controlled by a foot lever. Platform is raised by power and on polished steel rods. All clutch, trip, and brake parts are quick acting and positive. Upright shaft runs on a ball thrust bearing. Platform lifting shaft rolls on Timken Roller Bearings. The best machine cut gears are standard equipment. Each set of augers is mounted on a separate stem which makes it convenient to change from one size to another. The weight of each package is automatically controlled by a regulator. An output of four hundred, eighth sacks per hour can be obtained.

DIMENSIONS AND NET PRICES

Extreme height.....	7 ft. 10½ in.
Extreme length.....	2 ft. 10 in.
Extreme width.....	3 ft. 0 in.
Height to center of drive pulley.....	7 ft. 0 in.
Height to top of frame.....	7 ft. 3¾ in.
Size of drive pulley.....	12x4½ in.
Speed of drive pulley.....	500 R.P.M.
Shipping weight.....	750 lbs.

Net Price, with one tube and auger.....	\$195.00
Net Price, extra tube and auger.....	20.25

THE "MOGUL" BRAN AND FEED PACKER

Designed to meet the demand for a stronger and better packer. The "Mogul" possesses many distinguishing features such as:

- Substantial one-piece iron supporting frame.
- Disc friction clutch having no intricate parts and requiring no adjustments.
- Semi-steel gears.
- Self-oiling bearings.
- Ball thrust bearing for upright shaft.
- Center lift, counterbalanced platform with cushion springs.
- Automatic starting and stopping mechanism.
- The fastest bran and feed packer known.

DIMENSIONS AND NET PRICES

Height.....	9 ft. 11¾ in.
Width.....	6 ft. 2 in.
Depth.....	3 ft. 8¾ in.
Height to center of drive pulley.....	8 ft. 11¾ in.
Speed.....	260 R.P.M.
Bevel gear on upright shaft.....	39 teeth
Pinion on countershaft.....	20 teeth
Size of hopper, inside.....	14 in. x 30 in.
Size of drive pulley.....	24 in. x 8 in.
Shipping weight.....	2850 lbs.

Net Price with one size of tube, auger and enclosing case.....	\$420.00
Net Price of each additional enclosing case, tube and auger.....	52.50



Fig. M182



Fig. M118

PEERLESS FEED GRINDING MILLS

For Crushing and Grinding Corn and Cob, Shelled Corn and Grain

This Mill has been designed to meet the demand for one that can be operated with **light power**, yet have a reasonable capacity, do **fine grinding** and sell at a low price.

It is equipped with a **patent quick release**, by which the plates can be instantly thrown apart without changing the adjusting screw, a **ball bearing device** for taking the end thrust of the main shaft that will not heat or cause friction and a wooden pin break to protect the machine in case any hard substance gets into it. Made of iron and steel, excepting Hopper. One pair fine and one pair of coarse plates furnished with each mill.

The grinding plates of the Peerless Feed Mills are made of chilled iron with **machine cut corrugations**, so that they are absolutely perfect and true and will out-last any ordinary grinding plate threefold. They also can be re-cut when dull and are made in sections, three of which constitute a plate, two plates to a set.

SIZES, DIMENSIONS AND NET PRICES—F. O. B. Factory

Size Number	Capacity Bushels Per Hour	Horse Power	Pulley Size Inches	Size of Plates Inches	Weight Pounds	Mills Net Price Each	Plates Net Price Per Pair
16X	6 to 20	3 to 5	14x4	6½	175	\$35.50	\$2.75
1400	10 to 35	6 to 10	14x5	8	240	54.50	3.50
10X	20 to 50	8 to 12	14x6	9	350	55.00	4.50

Speed 300 to 600 R.P.M.

Bagger, for any of the above mills. Price.....\$19.50

"LITTLE VICTOR" CLEANER

With Barnard-Cornwall Patent Finger Sieves—Two Sizes.
Capacities 60 to 150 bushels per hour

This machine is designed to clean shelled corn and other grains; to separate cobs from shelled corn, and clean the corn for market, and to be used as a receiving separator in small mills where there is not room to locate the ordinary sized receiving separator.

The grain is received in a hopper on top of the machine and passes through it to the sieve, through this sieve into the separating trunk, from which it issues clean, while the dust is discharged by the fan, out of doors. The corn sieve is **Barnard-Cornwall's Patent Finger Sieve**, which, in one operation, removes all the fine cob ends, and makes the corn perfectly clean for grinding into meal. We can furnish sieves for any kind of grain desired. As a corn cleaner of moderate capacity it has no equal, and is indispensable in a grist mill to clean the corn before grinding. The sieves are removable, and extra sieves can be furnished for handling different kinds of grain.

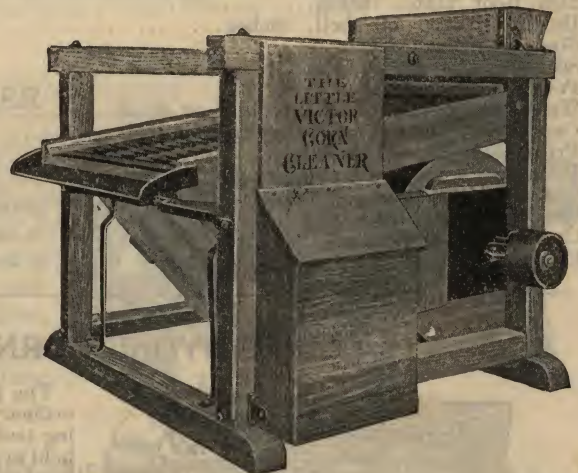


Fig. M119

SIZES, DIMENSIONS AND NET PRICES—F. O. B. Factory

Size	Height	Space on Floor Over All	Pulley Inches	Fan Opening Inches	Rev. per Min.	Wt. Lbs.	Capacity per Hour Bushels	Net Price with 1 Sieve	Extra Sieves Net Price	
									Regular	Cornwall
000	3 ft. 11 in.	3 ft. 8 in. x 4 ft. 11 in.	7x3½	8½x10¼	500	350	60 to 80	\$ 67.50	\$4.95	\$ 8.80
00	3 ft. 11 in.	4 ft. 4 in. x 5 ft. 1 in.	7x4	11 x10	500	450	125 to 150	108.00	7.45	13.05

"BISON" CORN AND COB CRUSHER

Designed to Break Down Husked Ear Corn and Prepare It for Grinding on a Buhr, Disc or Roller Mill

All parts are interchangeable and may be replaced at a slight expense.

SIZES, DIMENSIONS AND NET PRICES, F. O. B. Factory



Fig. M120

Size	Capacity Bushels per Hour	H. P. Required	Size Pulley	Speed R. P. M.	Weight Lbs.	Height Over All	Length Over All	Width Over All	Net Price
Baby	10 to 30	2 to 4	16x5	300 to 600	270	20"	41"	16"	\$55.00
Bison	30 to 75	4 to 7	18x6	300 to 600	350	21"	41"	18"	66.00

All Machines run with the Sun, facing Machine at pulley end.

REPAIR PARTS		Baby Bison		Bison
Breaker Worm.....	\$6.60			\$11.00
Revolving Cone Grinder.....	5.00			6.60
Stationary Cone Grinder.....	5.00			6.60
Knife.....	1.65			1.65

"EXCEL" CORN AND COB CRUSHERS

SIZE 5

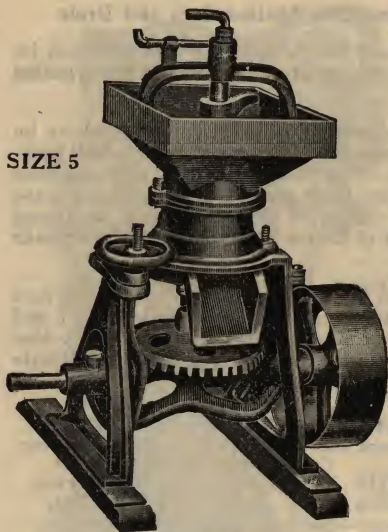


Fig. M121

The "Excel" Crushers are too well and favorably known to require detailed description.

They are of the vertical type with stationary shell and revolving cone. Made in two sizes to suit nearly all requirements.

Intended especially for crushing ear corn, breaking the cob and kernels to a fineness that will feed readily into any fine feed grinder.

SIZE 6

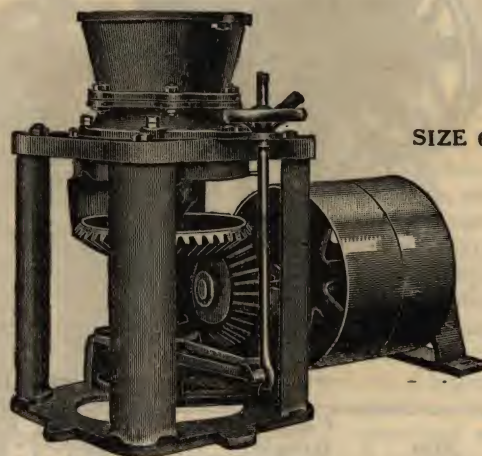


Fig. M122

SIZES, DIMENSIONS AND NET PRICES—F. O. B. Factory

Specifications	Size 5	Size 6
Size floor plate, inches.....	18x22	24x24
Height to top of shell, inches.....	34	39
Size of pulley, inches.....	16x5	20x8
Speed of pulley, R. P. M.....	150 to 400	300 to 500
Power required, H. P.....	3 to 4	8
Weight, lbs.....	400	1000
Capacity per hour (Coarse Crushing) bushels.....	40	75 to 100
Price, net, with tight pulley.....	\$75.10	\$140.00
Price, net, with tight and loose pulleys.....		150.00
Cast Iron Hopper for No. 6 Mill, extra.....		15.00
Crushing Shell.....	9.00	14.00
Crushing Cone.....	9.00	14.00
Crushing Ring.....		9.00

"KENYON" CORN AND COB CRUSHER

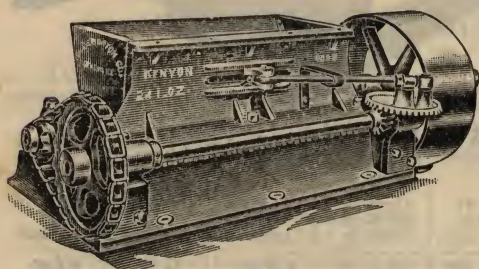


Fig. M123

The principle involved in this Crusher is different from that of the ordinary type of crusher. A number of circular saws with large projecting teeth are attached to the main shaft. The saws are separated and held in place by friction discs, which allow the saws to slip when striking hard particles. Hardened steel fingers between each saw, rip, shear and crush the corn as it passes from the hopper. An Agitator prevents the corn from bridging and clogging. This Crusher will crush either hard or soft, wet or dry corn.

No better crusher made for this purpose. It will give long and continued service. This Machine is a Crusher Only, for preparing corn and cob for grinding on roller, attrition, disc, hammer or stone buhr mills.

Furnished in right or left hand. Right hand always shipped unless otherwise ordered.

SIZES, DIMENSIONS AND NET PRICES—F. O. B. Factory

Length, over all, inches.....	62 1/4
Width, over all, inches.....	24
Length, base, inches.....	38 1/4
Width, base, inches.....	19
Hopper, inside, inches.....	24x10 1/4
Driving Pulley, inches.....	22x8
Speed, R.P.M.....	600 to 900
Horse-power.....	10 to 15
Capacity, bu., per hr.....	100 to 150
Shipping weight, lbs.....	875
Net Price, each.....	\$200.00
Replacements:	
No. 7 Saws, each.....	.75
No. 8—59M Saw Washers, each.....	.25
No. 12—1KCC Tooth Block Center.....	3.50
No. 13—Tooth, each.....	.25

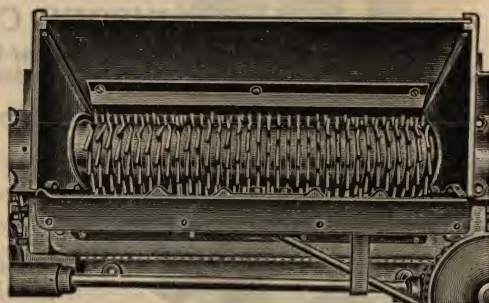
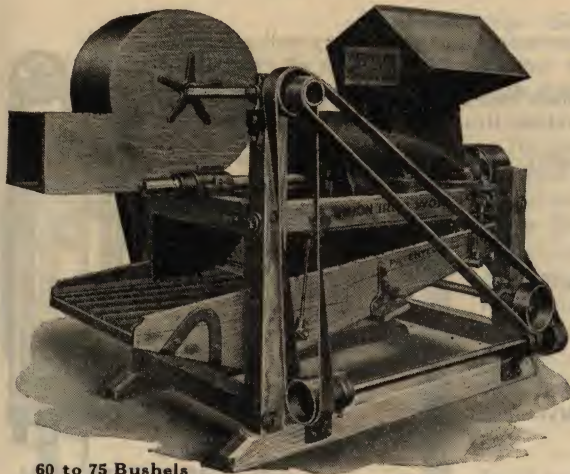


Fig. M124

Showing the Cutting Saws on the "Kenyon"

THE "WESTERN" COMBINED MILL SHELLER AND CLEANER



60 to 75 Bushels
Capacity

Fig. M115

A Small Capacity Machine of Highest Quality

Durable—Efficient—Self-Feeding—Dustless and Noiseless

An excellent machine of small capacity. It is Simple, Strong, Durable, Self-Feeding, Dustless, Noiseless, Easily Adjusted to suit different conditions of corn; can be changed to run in either direction by simply crossing belt that drives counter shaft. The hopper is reversible. Shells the corn clean from the cob and cleans it perfectly with a suction fan; is small (see dimensions), runs at a low speed, requires but little power and is, in every respect, the best Mill Sheller on the market.

We are prepared to fit this machine with both ear corn and sacking elevators at an additional cost if desired.

DIMENSIONS, CAPACITY AND NET PRICE—F. O. B. Factory

Extreme Height	Space on Floor Over All	Size Pulley	Revolutions per Minute	Weight Pounds	Capacity in Bushels per Hour	Horse Power	Net Price
3' 9"	4' 4"x26"	8"x5"	600	650	60 to 75	3 to 4	\$108.00

Fan opening depth 7½" width 9"

IMPROVED "TRIUMPH" POWER SHELLER

Two Styles—to Stand on Floor or Hang from Ceiling

These Shellers are made entirely of steel and iron and in two different styles, viz., "A" and "B." Style "A" is made to rest on the floor or ground, and style "B" is constructed to fasten under the floor, and is generally preferred as a mill sheller for the reason that the hopper will be on a level with the floor and can be easily shoveled into.

Shells and separates corn from cob. The dust and dirt are removed by suction fan. They are designed and built for hard work, and are guaranteed to give entire satisfaction.

Built to Endure.

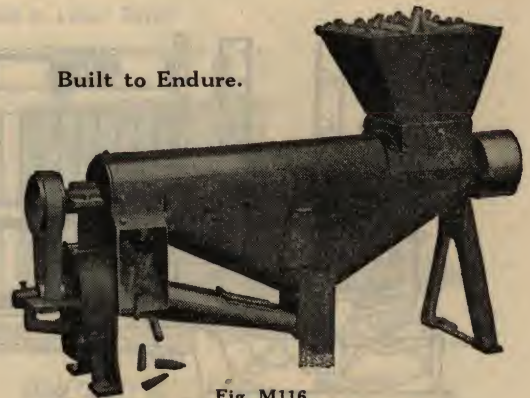


Fig. M116
Triumph Corn Sheller, Style A

DIMENSIONS, CAPACITY AND NET PRICE—F. O. B. Factory

Length	Height	Width	Size Pulley Inches	Speed Revolutions per Minute	Capacity per Hour Bushels	Weight Pounds	Horse Power	Net Price
6' 5"	3' 10"	1' 6"	10x6	600-750	75-100	525	5 to 6	\$105.00

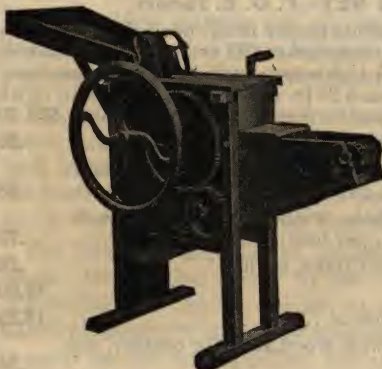


Fig. M117

"NORWOOD" TWO HOLE SHELLER

Particularly adapted to general farm, warehouse and custom mill use.

Furnished complete with fan, large feed table, cob carrier, crank and pulley for either hand or power use.

Pulley for power drive 8x4 inch, Speed 300 to 400 R.P.M., Weight 240 lbs., Capacity 25 to 30 bushels per hour. Power required 1 to 2 H. P.

NET PRICES—F. O. B. Factory

Price, complete as described above. Net.....\$26.50
Price, Sacking Elevator, complete. Extra.....20.80

THE "WESTERN" PASSENGER ELEVATOR

A passenger elevator is now looked upon as an economical and necessary adjunct to every well-appointed grain elevator.

The **Western** elevator is of late design, equipped with double safety catches, both at top and bottom of cage, which, in case the lifting cable gives way, grip the side rails automatically, and stop the fall instantly.

The lifting rope is **eight strand, sixteen wire, steel cable**, of best quality, running over heavy cast iron sheave which operates in bearings of special design.

Detailed instructions for installing accompany each shipment.

Each outfit consists of the following:

Elevator Cage, made of hard wood, 7 feet high, with platform 26"x29".

One counter balance weight and three equalizing weights.

Guide rails, 2"x1½" pine, sufficient for 40-foot lift.

One each of lift, guide and trail ropes.

PRICE NET—F. O. B. Factory.

Elevator, consisting of outfit mentioned above.....	\$60.00
Extra weights to carry two men.....	10.00
Elevators over 40-foot lift, per foot additional.....	.60



Fig. M158

THE "WESTERN" CHAIN CONVEYOR AND FEEDER

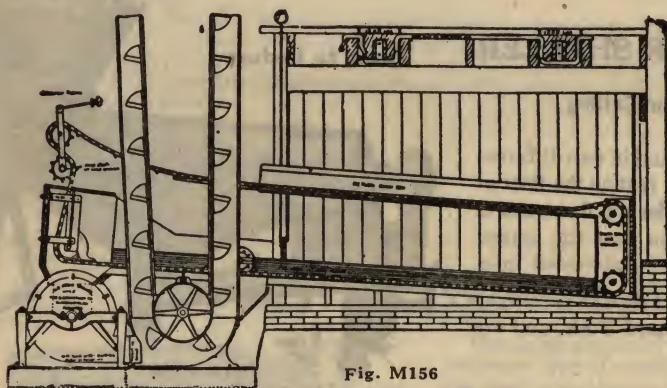


Fig. M156

Showing Installation of Conveyor and Feeder

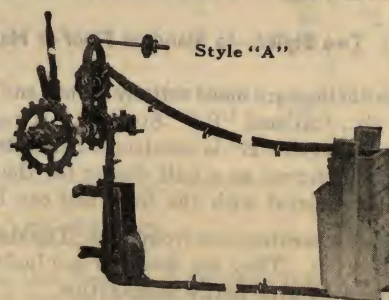


Fig. M157

Designed for conveying and feeding ear corn automatically from a dump sink, or crib, to the elevator boot, but will handle all kinds of grain. Provided with a clutch sprocket and is started and stopped by shifting the lever. The chain will not carry the grain back as in the old belt conveyor, and it cleans the sink so thoroughly that other grain may follow without mixing.

The work is done on the lower chain, as the top chain returns through a box or covering which keeps the grain from it. By the use of this feeder, the drive-way can be lowered and still retain the same amount of storage under the dump, as the sink is hopped only from two sides at about one-third pitch.

The capacity is regulated by the speed and number of special links interspersed. For handling ear corn, the head shaft should revolve thirty-five to forty revolutions per minute; for small grain, fifty to seventy-five revolutions per minute, according to capacity desired.

The grain is conveyed by the lower chain, which runs in a V-shaped trough, lined with steel track made in three pieces, drilled and countersunk for screws. The trough should be

lined with sheet steel, 12 inches on each side of this track, so that the grain will move easily and not be retarded by a rough surface.

This feeder works on the level, or an incline of four feet in sixteen feet, and conveys any distance required.

PRICES NET—F. O. B. Factory

Outfit Style "A," including feeder head, head shaft, 2 pillow blocks, collars, clutch sprocket (14 to 24 tooth) with hub and lever, universal tightener, back box with sprockets, 10 ft. of steel track and 25 ft. of SM477 feeder chain (with F-16 special attachment every 7th link, 16 inches).	\$70.00
Extra SM477 feeder chain, all plain links, per foot...	.60
Extra SM477 feeder chain, with F-16 special attachment every 7th link, per foot.....	.68
Extra SM477 feeder chain, with F-16 special attachment every 4th link, per foot.....	.73
F-16 special attachment links, each, .....	.20
Kickoff attachment.....	12.00
Chain Tightener, complete.....	13.25
Steel track (3 pieces, with wood strip for center), per foot.....	.24
Cast iron track, per foot.....	.46

ALL IRON OVERHEAD WAGON DUMP

Roller Bearings—Easily Operated—Strong, Durable

The illustration here shows the all-iron overhead wagon dump as it is regularly furnished. It is built very heavy and strong for the most severe service, and is undoubtedly the best and most economical overhead dump on the market.



Fig. M148

The hollow steel shaft is 8 inches in diameter and 11 feet long. The Sprocket Wheel and Hoisting Chains are securely fastened on the shaft and the chains have loop rings for slipping over wheel hubs. The boxes are Roller Bearing, which make the dump very easily operated. The Gears in the all-iron frame have a lock to hold at any place desired and to prevent any danger of the load dropping back until released. In the power dump a friction brake is supplied to control the dump. The combined hand and power dump has extended shaft on which a double flange face pulley is placed to connect with the same type of pulley below, on which is a loose belt. We furnish a swinging tightener, which is fastened on the floor to work against this belt when operating the dump.

SIZES AND NET PRICES—F. O. B. FACTORY

Hand Power All Iron Overhead Wagon Dump. Each.....\$80.00
Combined Hand Power or Power Overhead Dump, with Extended Shaft,
One 12" x 5" Double Flange Pulley, and One Swinging Tightener. Each \$95.00

No Lumber or Timber Included in These Prices

"CLARK" POWER GRAIN SHOVELS

The Outfit Pays for Itself Many Times in Labor Saved

Simple—Powerful—Durable

Doubles the Work Done—Saves Half the Labor

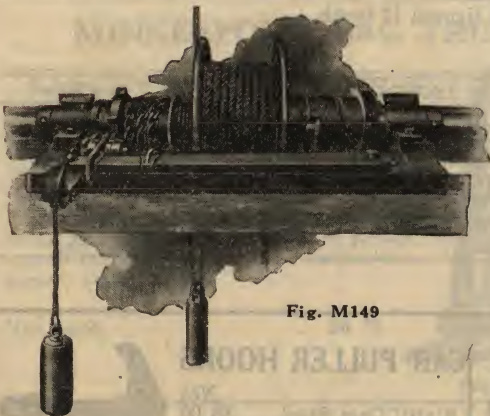


Fig. M149



Fig. M150
Hickory Handle
for Wooden
Scoop



Fig. M151
Wooden Scoop for Power
Grain Shovel



Fig. M152
Pedestal Sheave



Fig. M153
Single Car Door Sheave, A



Fig. M154
Car Door Sheave, B



Fig. M155
Floor Swivel Sheave

With a single machine one man can unload a carload of wheat or small grain in fifteen minutes; with a pair of machines two men can unload a car in five to seven minutes.

The illustration shows one of our Single Clark Automatic power shovels. They are generally used in pairs, both being placed on the same shaft, side by side. They are perfectly automatic in action and may be adjusted to throw in or out of gear at any desired point.

The price list includes the following fixtures with each single shovel: One scoop, 50 feet of rope, scoop chain, one double lead sheave, one swivel sheave and shaft with 9-inch projection to receive driving pulley. An extra charge is made for the driving pulley, the amount depending upon the size required. Speed 60 to 65 R. P. M.

NET PRICE

Single Shovel, complete.....Each \$150.00
Double Shovel, complete.....Each 300.00

Net Price—Appliances Used with Power Shovels

Wooden scoops, for grain, M151	Each	\$ 5.28
Wooden scoops, for ear corn.....	Each	13.20
Wooden Handles (hickory), M150	Pair	1.65
Scoop Chains.....	Each	1.72
Cast Steel Hooks.....	Each	.53
Adjustable Pedestal Sheaves, M152	Each	18.00
Floor Swivel Sheaves, M155	Each	9.00
Car Door Sheaves, Style "B," M154	Each	5.10
Car Door Sheaves, Style "A" double.....	Each	8.40
Car Door Sheaves, Style "A" single, M153	Each	5.10

WELLER WIRE ROPE CAR PULLERS

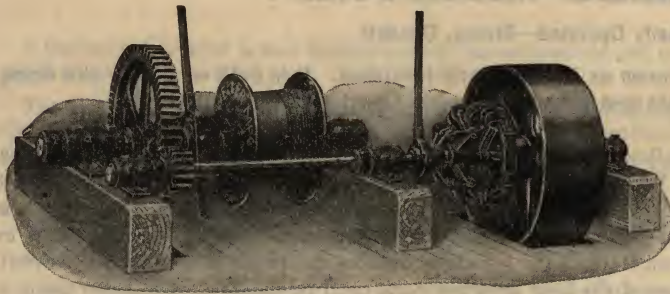


Fig. M159

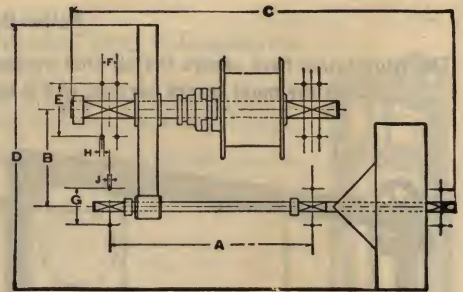


Fig. M160

These Car Pullers are made to meet the requirements of every situation and for the most exacting service. While the design may be changed to meet any local condition, when desired, the standard form shown above will meet all ordinary conditions.

The capacities are based on normal conditions, with straight and level track, and in weather which does not hamper car movement. Under such normal conditions the starting resistance is about two horse power per loaded car. On bad track, against adverse grades, and in cold and snowy weather and abnormal conditions the effective capacity of the machine will be reduced.

Standard machines are regularly supplied with pulleys for belt drive. When desired, gears may be furnished in place of pulleys for motor connection at the difference in the price between the gears and regular pulley equipment. Cut gears should be used and the motor pinions should be of steel or brass.

Jaw clutch can be furnished spiral instead of square at **no extra charge** if so ordered. Drums may be supplied with spiral grooves if desired but this is not, as a rule, necessary.

We recommend the use of Plow Steel Wire Rope on all pullers.

Prices quoted below are for the machines K. D. No structural steel or wood frame work is supplied at the prices quoted.

SPECIFICATIONS AND NET PRICES

Size No.	Weight Each Pounds	Horse Power	Capacity Cars	Drum Size Inches			Main Gear		Dia. Drum Shaft	Dia. Count. Shaft	Drive Pulley		Clutch No.	Dia. of Cable	Cut Gears for Motor		Net Price
				Dia.	Face	Flange	No. of Teeth	Pitch Inches			Size	R.P.M.			Teeth	D.P.	
111	850	10	3	15	11	21	* 90	1 1/4	2 15/16	2 3/16	28x9	112	2412	1 1/2	98	3 1/2	\$ 343.75
112	2200	27	8	18	14	26	*104	1 1/2	4 7/16	2 11/16	42x12	128	2424	5/8	86	2	627.00
113	3550	40	12	22	16	31	*124	1 3/4	5 1/16	3 3/16	48x16	117	2624	3/4	94	1 3/4	913.00
115	5130	61	18	26	20	36	*110	2	6 1/2	3 15/16	60x18	93	4427	7/8	120	1 1/2	1355.75

*Gears and pinions figured cast steel, motor pinions steel. All pinions figured 13 tooth.

DIMENSIONS

Size No.	Capacity Cars	DIMENSIONS, INCHES							Foot Bolts	
		A	B	C	D	E	F	G	H	I
111	3	40	19 5/16	81	50	9 3/8	...	7 5/8	7/8	5/8
112	8	50	22	100	60	11 1/2	3 1/4	8 1/4	3/4	3/4
113	12	60	27 3/8	117	77	13 3/4	4 1/8	9 3/8	7/8	7/8
115	18	72	34	136	96	16	5	9 7/8	1	7/8

Price on Puller includes Pulley, but not Lead Sheaves Hook or Rope.

LEAD SHEAVES

Fig. M161
Single Sheave

	Net
Single 12" Sheave....	\$30.00
Single 18" Sheave....	54.00
Double 12" Sheave....	66.00
Double 18" Sheave....	102.00

Fig. M162
Double Sheave

CAR PULLER HOOKS

Fig. M163
Hook

	Net
6"x10" Cast Steel....	\$5.00
6"x12" Cast Steel....	7.00
6"x14" Cast Steel....	8.50

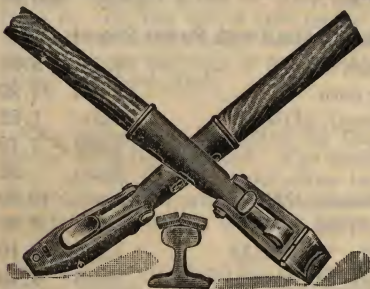


Fig. M164

THE BADGER CAR MOVER

The Never-Slip Spurs catch the outer edges and get a Double Grip on the Rail. The Four-Cornered, square spurs, can be driven out and turned four times, then changed end for end and used four times more.

The Badger cam-pivoted end follows the car wheel, lengthens the push, moves the car easily.

Hardwood handle and malleable castings; light, handy and durable. Weight only 15 pounds.

Price, net. Each.....	\$5.50
Extra Spurs. Pair.....	.45
Extra Handles. Each.....	1.80



Fig. S174

GUMP'S STANDARD BAG TRUCK

A well made, light and handy bag truck. Has a strong heavy, iron nose, with a $4\frac{1}{2}$ -inch projection, and is balanced to stand alone without support. Nose projects over the wheels to prevent the load from rubbing. Length 42 inches, width at nose $11\frac{1}{4}$ inches, width at handle $18\frac{1}{2}$ inches, diameter of wheels, 6 inches. Weight, 23 lbs.

Price, each.....\$3.90

GUMP'S HEAVY BAG TRUCK

This truck was designed for handling large sacks, has an extra heavy iron nose with long projection, and guaranteed in every way.

Length 48 inches, width at nose 15 inches, width at upper cross bar 20 inches, 1 inch steel axle with turned bearings, iron wheels $7\frac{1}{2}$ inches diameter, 2-inch face. Weight 60 lbs.

Price, each.....\$6.00

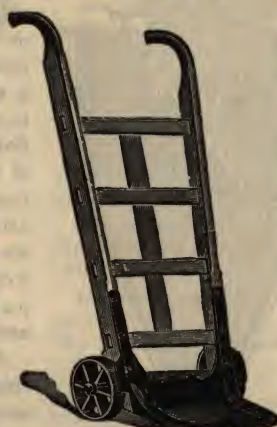


Fig. S175

MINNEAPOLIS BAG TRUCK

A Long Nose Bag Truck, has hardwood handles, made for big bulky bags and warehouse work, where bags are removed in bunches — the nose may be slipped under a pile of three or four bags and all removed at once.

Handles 42 inches long; width at upper cross bar 17 inches, at nose $11\frac{1}{4}$ inches; nose 9 inches long; wheels 7 inches diameter; weight 30 lbs.

Net, each.....\$6.75



Fig. S176

CLIMAX SCOOP TRUCK



Fig. S177

Capacity $2\frac{1}{2}$
Bushels of Grain or
200 Pounds of Coal

The Climax Scoop Truck is a wonderful time and labor saver, a scoop on wheels, designed to increase the efficiency from six to ten-fold of a man unloading coal, grain, etc., from ends of box cars or bins. The BOWL is pressed No. 10 gauge steel with a corrugation to form a housing for the wheels and a seat for the handles. Weight about 58 lbs.

Net price, each.....\$18.50

Style G
All cross
bars straight

Fig. S178



Grain Truck

Put together with bolts and lock washers instead of rivets so that any part can easily be replaced.

The Grain Trucks have pressed steel wheels and Bag truck cast wheels. Both types are plain bearing.

Roller bearing and rubber tired wheels, extra—price on application.

"AMERICAN" PRESSED STEEL TRUCKS

The steady trend towards the use of steel for replacement of less durable materials, such as wood, is responsible for the development of "American" Pressed Steel Hand Trucks.

Scientifically designed and constructed so that, size for size, they are generally as light as the conventional wooden truck.



Fig. S179

Style M
Lowest cross
bar curved

Bag Truck

SIZES AND NET PRICES—F. O. B.—Chicago

Truck Number.....	45M	56G	59G
Length of Sides (Including Handles)...	45	56	59
Width at Handles.....	20	21	22
Width at Nose.....	11	$14\frac{1}{2}$	15
Length of Nose.....	9	$7\frac{1}{2}$	8
Size of Wheels.....	$7 \times 1\frac{3}{4}$	$10 \times 2\frac{1}{2}$	12×3
Size of Axle.....	$\frac{7}{8}$ sq.	$1\frac{1}{8}$ sq.	$1\frac{3}{8}$ sq.
Approximate Weight.....	47 lbs	75 lbs	110 lbs

Price each, Net.....\$9.60 \$16.10 \$19.75

"REYNOLD'S" IMPROVED PLATFORM TRUCK



Fig. S180

For Mills, Stores, Warehouses, Creameries, etc. Patent Ball Bearing Caster, Light Running, Turns Easily, Even When Heavily Loaded. Heavy Construction.

Also made with iron or wood racks or boxes with sides to let down, or with removable ends and sides.

SIZES AND NET PRICES

Size No.	Size Platform Feet	Diam. Wheels Inches	Diam. Casters Inches	Height to Top of Platform Inches	Capacity Lbs.	Wt. Lbs.	Price Each Net
1	2 x 4	12	6	14	1200	152	\$22.50
4	2 x 5	12	6	14	1200	161	23.50
5	3 x 4	12	6	14	1200	173	24.30
6	$2\frac{1}{2} \times 5$	12	6	14	1200	175	24.30
16	$2\frac{1}{2} \times 5$	18	9	19	3000	243	30.00
18	2 x 5	18	9	19	3000	230	29.00
19	2 x 6	18	9	19	3000	240	30.00
22	3 x 6	18	9	19	3000	270	32.40

For very heavy work

EDTBAUER-DUPLEX NET WEIGHERS

For the Accurate Weighing of an Unlimited Number of Packages of the Same Net Weight

An Adjustable Speed of 6 to 35 Packages a Minute,
Depending on Size of Package

All Weights from One Ounce—
to Seventy-five Pounds

Weighing is an old art; the first scale made was an "even balance" and this principle is recognized today as the most scientifically accurate.

Continuing along this line of thought, and thousands of years later, there has been invented an "even balance" scale that automatically and correctly weighs materials as they fall through space. Think of weighing the waters of Niagara as they fall to the depths below—you say, impossible, perhaps rightly, but it can be done with dry materials falling in the same way.

Edtbauer-Duplex Weighers actually weigh a continuous stream of material as it passes through the machine; on "free flowing" stock, no power is required, as the stream falls by gravity of its own weight, and is accurately weighed and discharged into bag, carton or other container.



Fig. ED100

The "Edtbauer" patents (now owned by B. F. Gump Co.) cover this scientific invention and enable us to produce a single compartment automatic weigher possessing a **single tripping point** in combination with an absolutely **continuous flow**. The result is the elimination of multiple trip adjustments, of troublesome shut-offs, and the attainment of an unusually high degree of accuracy. In other words, **speed** with less working parts, and consequently **greater accuracy**.

Automatic, but not complicated, the **Edtbauer Net Weigher** does not need a trained mechanic to operate successfully. Merely by opening the feed gate, the Weigher will start to function smoothly and continuously, and the person operating the Scale has only to hold the container under the spout until the discharge is made.

The simplicity of **Edtbauer-Duplex Weighers** is shown in the cross sectional illustration.

The material passes from a supply hopper above, through the "Feed Regulator" (which may be adjusted to feed slow or fast) into the weighing hopper.

As the weighing hopper dumps the cup above swings into place, temporarily holding the stream until the bottom gate of the weighing hopper returns to the closed position, thereby inverting the "cup."

The material continues flowing past the cup until the next dump is made. Thus the stream of material flowing through the "Feed Regulator" is continuous.

For a period of more than 15 years **Edtbauer Duplex Net Weighers** have been successfully used in packaging products of the United States, Canada and European countries. The extreme accuracy and lasting durability of operation have made for them an enviable reputation wherever they have been used.

Feeding to the Weigher by hopper from the floor above, is the most economical installation for operating the **Edtbauer-Duplex Net Weigher**.

Where this is impossible, and only one floor available, we can supply an "Ideal" Ball Bearing Elevator, driven from a convenient power line shaft or from an individual motor drive; if space below the floor will permit, the material may be dumped from box, truck or bag, through a hole in the floor to the bottom of the elevator; or placed in hopper all on one floor.

When writing for information, state the kind of material the Scale is to weigh and the size packages that are to be put up.

EDTBAUER-DUPLEX NET WEIGHERS

TYPE S. C. GRAVITY WEIGHER

For Free-flowing Material — No Power Required



No
Power
Required

Fig. ED101
Showing Style of Nos. 1 and 2 with
Table Pedestal.

The **Edtbauer-Duplex Type S. C.** weighs automatically any free flowing material such as cornmeal, grits, scratch grains, salt, hominy, seeds, grain, whole bean and coarse ground coffee, granulated sugar, rice, peas, beans, tapioca, sago, and similar materials into any shape of package, and in any desired weight within its capacity.

Guaranteed accuracy depends upon the size scale being used, the material being weighed, and whether or not a satisfactory installation has been made. All weights are guaranteed to be as we represent them, and well within the requirements of the law and practical commercial demand. (For example: on one pound packages, running from 15 to 35 per minute on coffee, we guarantee an accuracy to within one-sixteenth ($\frac{1}{16}$) of one (1) ounce.)

Besides their use as accurate weighers of material going into bags or cartons, the **Edtbauer-Duplex Weighers** are used to give an accurate check on material flowing through conveyors, elevators, etc. For this class of work a Continuous Automatic Counter is attached to Scale.

For weighing salt and other similar materials we furnish machines made of non-corrosive "Monel Metal."

Due to the fact that free-flowing materials vary greatly in their nature as regards automatic weighing, Gravity Feed Weighers are furnished only for a single product, except when materials of quite similar nature are to be weighed.

Scales are shipped assembled, complete and ready for immediate installation, with the exception of a 200 pound supply hopper which will be furnished by us, at a small extra charge.

Heights Adjustable: Nos. 1 and 2 with floor pedestal from 60 to 72 inches; with table pedestal from 40 to 52 inches. The No. 3 with floor pedestal from 60 to 78 inches. The No. 4 with floor pedestal from 74 to 102 inches.

When ordering **Edtbauer-Duplex Weighers**, specify the material to be weighed, and the weights desired.

No. 1, Type S. C.—Capacity: up to $2\frac{1}{2}$ lbs. free flowing cereals, cornmeal and poultry scratch feeds, and from 3 ounces to $1\frac{1}{2}$ lbs. whole bean or coarse ground coffee, or up to 3 lbs. granulated sugar.

Volume capacity: 123 cu. inches.

Approximate weight boxed—250 lbs.

No. 2, Type S. C.—Capacity: up to 5 lbs. free flowing cereals, cornmeal and poultry scratch feeds, and from 4 ounces to 3 lbs. whole bean or coarse ground coffee, or up to 7 lbs. granulated sugar.

Volume capacity: 280 cu. inches.

Approximate weight boxed—260 lbs.

No. 3, Type S. C.—Capacity: up to 15 lbs. free flowing cereals, cornmeal and poultry scratch feed, and from 1 to 9 lbs. whole bean or coarse ground coffee, or up to 25 lbs. granulated sugar.

Volume capacity: 890 cu. inches.

Approximate weight boxed—320 lbs.

No. 4, Type S. C.—Capacity: up to 75 lbs. salt, or up to 35 lbs. free flowing cereals, cornmeal and poultry scratch feeds, and from 5 to 25 lbs. whole bean or coarse ground coffee, or up to 50 lbs. granulated sugar.

Volume capacity: $1\frac{1}{5}$ cu. feet.

Approximate weight boxed—685 lbs.

Double capacity may be obtained by allowing two rapid discharges into one container.



Stock
Flows
Through

Fig. ED102
Showing Style of Nos. 3 and 4
with Floor Pedestal.

Write for information and prices.

EDTBAUER-DUPLEX NET WEIGHERS

TYPE S.C.A. POWER FEED WEIGHERS

For Non-Free Flowing Materials

With Power Feed Regulator—Single Compartment Type

For handling non-free flowing materials, it is necessary to assist the flow into the weighing hopper, and for this purpose only, "Power" is used on EDTBAUER-DUPLEX WEIGHERS. A one-eighth ($\frac{1}{8}$) H.P. motor is mounted on the pedestal and through an enclosed worm gear speed reducer, power is communicated to the patented Feed Regulator by cone pulleys and belt, permitting of easy regulation to determine speed of flow required by the operator. Otherwise the weighers are the same as the gravity type, "continuous flow" as shown on the preceding pages.

Non-free flowing materials are therefore handled with ease on EDTBAUER-DUPLEX Power Feed Weighers, and include such goods as: rolled oats, fine ground cornmeal and cereals, pancake flour, mash feeds of all kinds, gelatine powders, dry chemicals, pulverized, steel cut and fine ground coffee, tea, and similar materials.

Due to the fact that "non-free flowing" materials vary greatly in their nature as regards automatic weighing, Power Feed Weighers are furnished only for a single product, except when materials of quite similar nature are to be weighed.

It is impossible to enumerate in this catalog all the materials that the Edtbauer Duplex Power Feed Weigher will handle successfully with speed and practical commercial accuracy. The few materials herein listed are typical of the average requirements. Do not hesitate to write us concerning special materials which you are interested in packing.

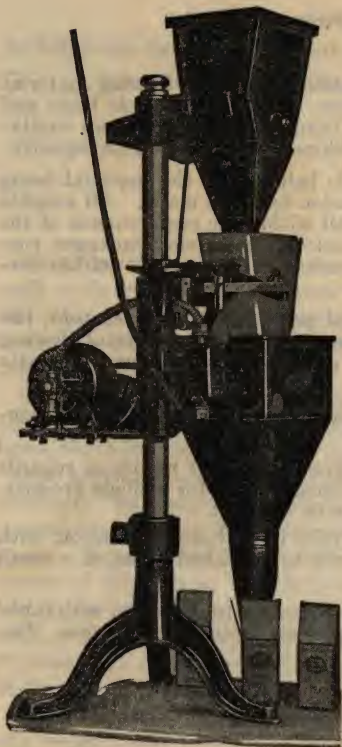


Fig. ED103
Showing Style of Nos. A-1 and A-2
with Table Pedestal and Power
Feed Regulator.

When ordering Edtbauer-Duplex Power Feed Weighers, name the material to be weighed, the discharge required, and the electric current available.

EDTBAUER-DUPLEX POWER FEED WEIGHER, TYPE S.C.A.

No. A-1, Type S.C.A.—Capacity: $2\frac{1}{2}$ lbs. fine ground cereals, pancake flour, rolled oats or chemicals, or from 3 ozs. to $1\frac{1}{2}$ lbs. fine ground or pulverized coffee.

Volume capacity, 123 cu. in.

Approximate weight, boxed, 310 pounds.

No. A-2, Type S.C.A.—Capacity: 5 lbs. fine ground cereals, pancake flour and rolled oats, mash feeds, chemicals, soft cornmeal, etc., or from 4 ozs. to 3 lbs. fine ground or pulverized coffee.

Volume capacity, 280 cu. in.

Approximate weight, boxed, 340 pounds.

Height adjustable, Nos. A-1 and A-2 from 65 to 77 inches with table pedestal and 95 to 107 inches with floor pedestal.

No. A-3, Type S.C.A.—Capacity: 2 to 10 lbs. soft cornmeal, fine ground cereals, mash feed, rolled oats, fine ground or pulverized coffee; 5 to 20 lbs. pancake flour; 5 to 25 lbs. mineral fertilizers and similar chemicals.

Volume capacity, 890 cu. in.

Height adjustable, 93 inches to 110 inches.

Approximate weight, boxed, 635 pounds.

No. A-4, Type S.C.A.—Capacity: 5 to 25 lbs., soft cornmeal, fine ground cereals, mash feeds, rolled oats, and chemicals; 5 to 40 lbs. pancake flour; 10 to 50 lbs. mineral fertilizer, and similar materials.

Volume capacity, 2074 cu. in. or $1\frac{1}{5}$ cu. ft.

Height adjustable, 96 inches to 114 inches.

Approximate weight, boxed, 780 pounds.



Fig. ED104
Showing Style Nos. A-3 and A-4
with Floor Pedestal.

Write for information and prices.

EDTBAUER-DUPLEX NET WEIGHERS

No. A-0 TYPE S.C.A. POWER FEED WEIGHER

Is adjustable up to 35 packages per minute, and insures accurate weighing of **Teas, Chemicals, Powders** and materials that are not adhesive. Patented feeder insures accurate feeding without crushing or damaging delicate materials.

It has a continuous feed, a single weighing hopper with a single tripping point, and may be furnished with either counter or floor pedestal.

Capacity 1 to 8 ounces. Volume capacity 70 cu. in.
Shipping weight, 310 pounds.
Price on application.

VIBRATING PACKER

For use on materials that are bulky and require packing or settling into bottles, containers, stiff cartons, cans, etc.

Vibrator is attached to a $\frac{1}{8}$ H.P. motor which revolves 1,150 R.P.M., and is mounted on a cast iron stand with a holder to fit the container. The holder has an open bottom, insuring continuous operation in case of a spill, and is adjustable in order to receive the proper amount of vibration.

Price on Application

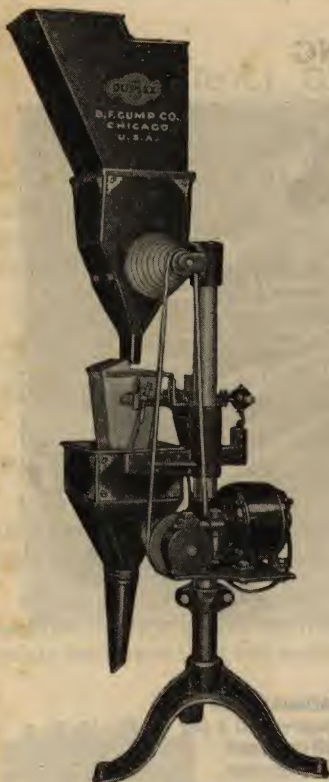


Fig. ED105

No. A-0—Capacity 1 to 8 Ounces.

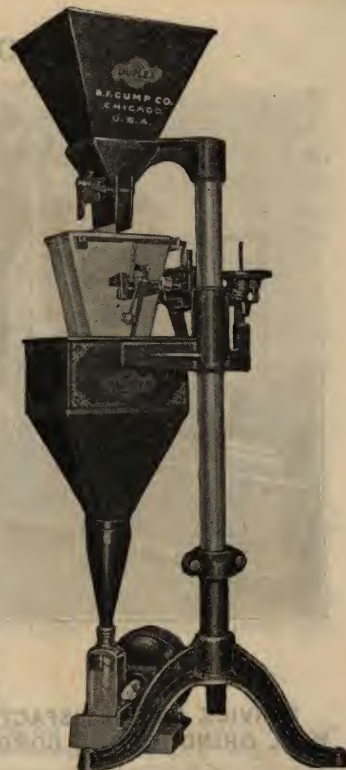


Fig. ED106

Showing the No. 1 Weigher with Vibrating Packer.

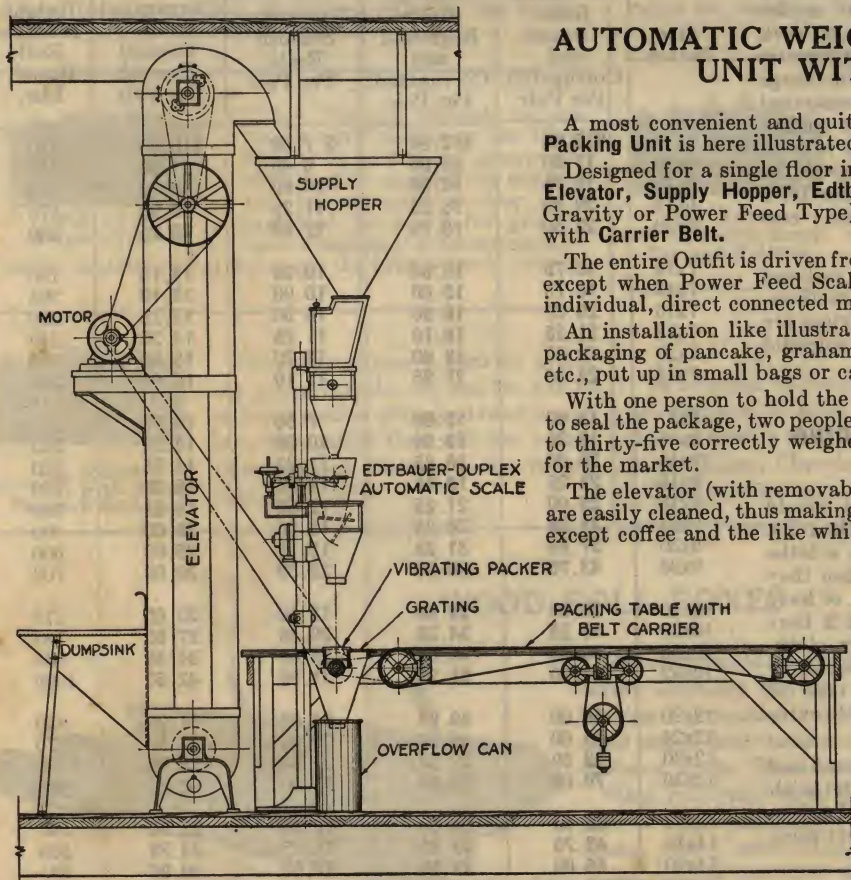


Fig. ED107

AUTOMATIC WEIGHING AND PACKING UNIT WITH ELEVATOR

A most convenient and quite economical Automatic Weighing and Packing Unit is here illustrated.

Designed for a single floor installation and consists of Dump Sink, Elevator, Supply Hopper, Edtbauer-Duplex Automatic Scale, (either Gravity or Power Feed Type), Vibrating Packer and Packing Table with Carrier Belt.

The entire Outfit is driven from a single motor, conveniently placed, except when Power Feed Scale is used which comes equipped with individual, direct connected motor.

An installation like illustration is particularly well suited to the packaging of pancake, graham, rye and buckwheat flour, corn meal, etc., put up in small bags or cartons for the retail trade.

With one person to hold the container under the spout and another to seal the package, two people can produce in one minute, from fifteen to thirty-five correctly weighed, packed, and sealed packages ready for the market.

The elevator (with removable boot slide), supply hopper, and scale are easily cleaned, thus making it possible to pack different materials, except coffee and the like which require separate installation.

Let us design a Edtbauer-Duplex Weighing and Packing Unit to suit your needs.

Full particulars and prices on request.

EDTBAUER



Reg. U. S. Patent Office

ROLL GRINDING AND CORRUGATING

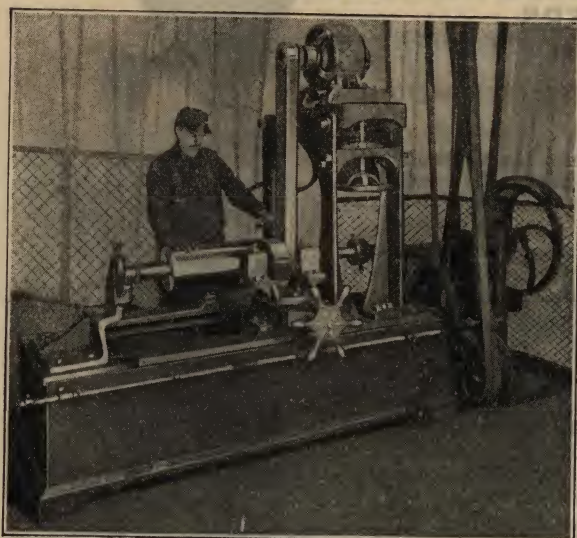


Fig. RC100

SERVICE AND SATISFACTION IN ROLL GRINDING AND CORRUGATING

Ever since rolls came into common use the word "GUMP" has been associated with high grade roll grinding and corrugating. Due to this fact, a great many mills have discontinued sending their rolls to nearby shops because of imperfect work, to enjoy the better results secured from us. This great volume of work requires us to maintain the finest automatic tools that money can buy and put them in charge of skilled mechanics who have demonstrated their fitness to give customers the best quality of work. If you have never sent your rolls to us, make up your mind now to disregard the matter of distance and freight—others have done so and ever after remained steady customers.

Chicago being one of the largest railroad centers with roads reaching in all directions, the most favorable transportation services are obtained, and this combined with our splendid facilities assures promptness.

PREPARING ROLLS FOR GRINDING OR CORRUGATING

Rolls to be reground or corrugated should have the journals round and true with the rolls. For this reason all rolls are tested in a lathe before proceeding with the work. When they are round and true, but slightly rough, or have small ridges, no extra charge is made if they can be trued up with a file or emery cloth. Where the journals are worn out of round, or contain deep ridges, it is necessary to take off a cut in the lathe, for which a reasonable extra charge will be made.

It is necessary to have roll journals round and true before grinding, as rolls are ground with the journals revolving in bearings, and unless the journals are true with the rolls, perfect work cannot be obtained.

*Prices Net, per Pair—10 to 30 Corrugations to the inch.
For 32 Corrugations to the inch and finer—Add 4 per cent.
For 8 Corrugations to the inch—Add 10 per cent.
For 6 Corrugations to the inch—Add 20 per cent.
Price for one Roll, one-half the price, per pair.

Size Inches	Corrugating		Grinding		
	Corrugated Rolls Ground and Corrugated, Per Pair	Smooth Rolls Reground and Corrugated, Per Pair	Regrinding Smooth Rolls Per Pair	Corrugated Rolls Ground Smooth Per Pair	Weight of Each Roll Boxed, Lbs.
6x12	\$15.00	\$12.50	\$ 7.50	\$10.00	130
6x15	17.50	15.00	9.40	11.90	155
6x16	18.75	15.60	10.00	13.10	165
6x18	20.00	16.25	11.25	15.00	175
6x20	22.50	18.75	12.50	16.25	200
7x14	18.75	15.60	10.00	13.10	190
7x15	18.75	15.60	10.00	13.10	205
7x16	20.00	16.90	10.60	13.75	220
7x18	21.25	18.10	11.25	14.35	240
7x20	22.80	19.60	12.20	15.60	260
7x24	24.35	21.25	13.10	16.90	300
9x8	15.00	12.50	7.50	10.00	215
9x11	19.35	15.95	10.60	14.00	263
9x14	20.00	16.85	11.25	14.35	310
9x15	21.25	18.10	11.90	15.00	330
9x18	25.00	21.25	12.50	16.25	385
9x24	31.25	26.25	15.00	20.00	490
9x30	37.50	31.25	18.75	25.00	600
9x36	43.75	36.25	22.50	30.00	700
10x10	25.00	22.50	12.50	20.00	275
10x30	41.25	34.35	20.60	27.50	785
10x36	50.60	41.85	25.60	34.35	935
10x42	61.80	51.25	31.90	42.50	1090
12x20	50.00	40.00	25.00	31.25	840
12x24	55.00	45.00	30.00	37.50	970
12x30	62.50	52.50	37.50	45.00	1150
12x36	70.00	60.00	45.00	52.50	1330
14x12	32.50	25.00	16.25	22.50	590
14x16	43.75	33.75	21.25	33.75	820
14x20	55.00	42.50	27.50	40.00	985

*For "LePage" Patent Corrugations—Price on Application.

ROLL GRINDING AND CORRUGATING—Continued

Good sharp break rolls, together with accurately ground smooth rolls, go a long way towards relieving the strain on the bolting cloth and prolonging its life and usefulness; also in maintaining your yield and quality standards. If the rolls do not perform their work properly, poor results are sure to follow in one form or another. Smooth rolls must be absolutely true and exact, and the break rolls cut uniformly with just the right shape and style of corrugation to give the best results for the work intended. These results you have a right to expect and are assured in the Gump Roll Dressing Department.

The originating of corrugations best suited for milling results and the making of our own hobs and tools insures accurate, uniform work and exact duplication of the cut previously furnished. In the case of coarse corrugations the accuracy of our tools make possible the retracing of the old cut after merely truing up the surface thereby reducing the roll diameters only slightly and prolonging their life from 60 to 75%.

When you do not wish to break in highly polished smooth rolls for reducing middlings, state in your order that you want our "dull polish."

Long rolls running in babbitted bearings, because of occasional warm journals, expand at the ends more than in the center, thus hindering a miller from obtaining uniform grinding the entire length of the roll. We can, when so requested, grind the rolls to allow for this expansion.

We can cut the rolls with any style of special corrugation for which a miller may express a preference. Shown below, as accurate as the engraver can reproduce, are enlarged, cross-sectional views of some of the Gump corrugations most commonly used, time-tried and never found wanting.



Fig. RC101
Gump's Special

This corrugation is recommended on break rolls on wheat for the following reasons: The dull top allows close grinding without cutting the bran unnecessarily. The peculiar shape of the teeth, together with the round bottom allows the middlings made to discharge freely from the corrugations without being mutilated, therefore producing the largest amount of unbroken middlings possible.



Fig. RC104
Saw Tooth Cut

This cut is used principally on corn and run sharp to sharp, giving a large grinding capacity with the least amount of power. It is used for grinding all grains where a strong cutting action and quick reduction of the material is desired. Combined with a large differential and spiral this cut is unexcelled for reducing stock to a fine product.



Fig. RC102
Chicago Special

Our Chicago Special corrugation is very similar to the Gump Special as to form of groove and with slightly rounded top and bottom but not quite so deep. It is preferred by many for grinding hard wheat as it produces smaller, rounder middlings, flattening out the bran without cutting.



Fig. RC105
"V" Cut with Sharp
Top and Bottom

This corrugation is very strong and is used by many millers for various purposes. It can be run in either direction with equal results. The grinding action is less than a saw tooth cut running sharp and more than a saw tooth running dull.



Fig. RC103
"V" Cut with Round
Top and Bottom

This corrugation is used for grinding many cereals. It can be run in either direction with good results and is a corrugation that will last a long time without having to be re-corrugated.

NOTE

In addition to handling of all standard size mill rolls we are prepared to grind with the same precision heavy duty flaking rolls up to 20 inch diameter, also the special rolls used in the Paper, Chocolate, Ink and Paint industries.

Prices quoted upon receipt of specifications.

WOOD ROLL BOXES



Fig. RC106

Mill rolls should always be boxed before shipment for two distinct reasons: Protection for the roll itself and in order to secure proper Railway Traffic Classification.

When rolls reach us in boxes unsafe for return shipment or without boxes, new, substantial, wood boxes will be furnished at prices shown.

SIZES AND NET PRICES

Roll Dia.	Roll Length	Price Each
6"	to 16"	\$2.00
6"	18-24"	2.25
7"	to 16"	2.25
7"	18-24"	2.50
9"	to 20"	2.75
9"	24-36"	3.00
10"	to 42"	3.50

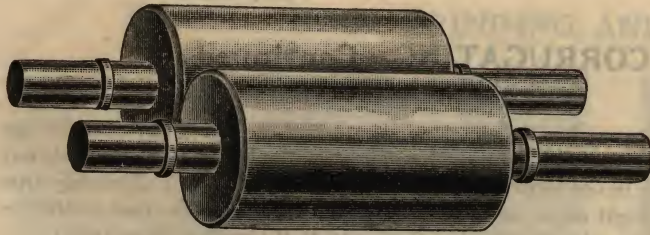


Fig. S133

CHILLED IRON MILL ROLLS

Guaranteed best quality, perfectly finished, and ground smooth or corrugated to suit requirements.

SIZES, NET PRICES AND WEIGHT

Size	Smooth Per Pair	Corrugated Per Pair	Weight, Boxed Per Pair, Lbs.	Size	Smooth Per Pair	Corrugated Per Pair	Weight, Boxed Per Pair, Lbs.
6x12	\$ 97.40	\$107.10	260	9x18	\$161.60	\$177.70	770
6x15	106.80	117.40	310	9x24	190.40	209.40	980
6x16	110.00	121.00	330	9x30	219.00	240.90	1200
6x18	116.20	127.80	350	9x36	247.80	272.50	1400
6x20	122.40	134.60	400	10x30	271.00	298.10	1570
7x14	118.80	130.60	380	10x36	318.40	350.20	1870
7x15	121.60	133.70	410	10x42	365.60	402.10	2180
7x16	124.40	136.80	440	12x20	393.40	432.70	1680
7x18	130.00	143.00	480	12x24	446.20	490.80	1940
7x20	135.40	148.90	520	12x30	525.40	577.90	2300
7x24	146.60	161.20	600	12x36	604.40	664.80	2660
9x11	128.20	141.00	520	14x12	409.00	500.00	1180
9x14	142.40	156.60	620	14x16	477.80	525.50	1640
9x15	147.20	161.90	660	14x20	546.20	600.80	1970

Price includes Journals furnished to suit the different makes of Roller Mills—with standard corrugations, not coarser than ten to the inch.

For Mill Rolls cut with LePage Patent Corrugation, for making 96% Cracked Corn—write for prices.

For Ball Bearing Journals add the following prices:

6 and 7" Diameter, per pair net	\$ 8.00
9" Diameter, per pair net	10.00
10" Diameter, per pair net	12.00

DIAGRAM FOR PLACEMENT OF ROLLS IN FRAMES

RIGHT HAND MILL

SHARP TO SHARP.

SHARP TO DULL.

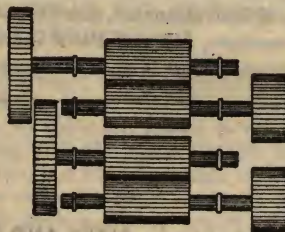


Fig. RC110

DULL TO SHARP.

DULL TO DULL.



LEFT HAND MILL

SHARP TO SHARP

SHARP TO DULL.

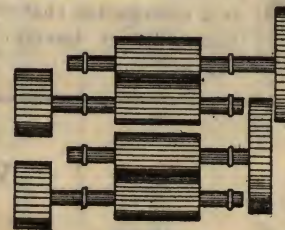
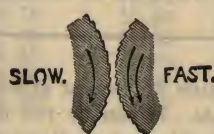
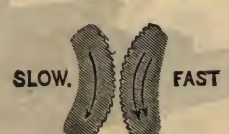
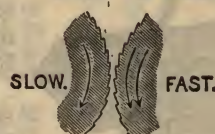


Fig. RC111

DULL TO SHARP.

DULL TO DULL.



To determine which is right or left-hand, stand facing the mill on the side having the outside fast roll nearest to you. If the pulleys on the fast rolls are on the right, the mill is Right-Hand; if on the left, the mill is Left-Hand.

TRAM PLATES

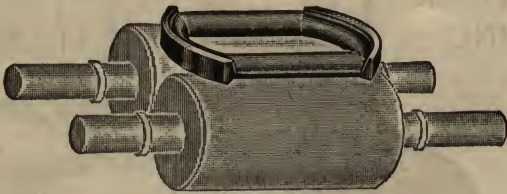


Fig. S123

Every Miller knows the necessity of keeping his rolls in perfect tram or parallel and this can only be secured by having a perfect tram plate.

NET PRICES

Tram Plates for 6 or 7 inch Rolls, each.....\$2.75
Tram Plates for 9 or 10 inch Rolls, Each.....4.25

ROLL BRUSH CLIPS

For Holding Roll Brushes

Fitted with thumbscrew and lock-nut to take up roll brush when it becomes worn from use.

Price each, net.....\$0.75
Price, per pair, net.....1.25



Fig. S124

ROLL BRUSH FRAMES and SCRAPERS

Complete with Brushes



Fig. S125

Made with Tampico Fibre Brushes, the ends of which are tightly pressed together and held in place by adjustable pieces of sheet steel.

The brush held in this manner makes a fibrous scraper that remains cool, in use, and removes all flakes and ring-arounds of material passing through the rolls. Equally effective under rolls with fine corrugations.

The brushes for each pair of rolls are attached to an equalizing frame, which holds the brushes against the rolls by means of adjusting screws, fitted with springs and lock nuts, therefore making the pressure on the rolls the same all over.

NET PRICES

For One Pair of Rolls Complete

6x12 Rolls, per set.....\$4.40	9x14 Rolls, per set.....\$5.50
6x15 Rolls, per set.....4.95	9x18 Rolls, per set.....6.00
6x20 Rolls, per set.....5.50	9x24 Rolls, per set.....6.75
7x14 Rolls, per set.....4.95	9x30 Rolls, per set.....7.25
7x16 Rolls, per set.....5.50	9x36 Rolls, per set.....7.75
7x20 Rolls, per set.....6.00	10x30 Rolls, per set.....7.75
7x24 Rolls, per set.....6.60	10x36 Rolls, per set.....8.25

"IDEAL" ROLL TRUCK



Fig. RB128

The best truck ever devised for moving mill rolls. With this truck one man can move heavy rolls as easily as though they were sacks of flour. The roll is lifted from the floor and it does not come in contact with nails, screws, etc., which damage the rolls, as is the case when rolls are dragged or rolled across the floor. All that is necessary is to run the truck over the roll, bear down and wheel the roll away. Made entirely of iron and steel. Will save its cost many times in time and labor saved.

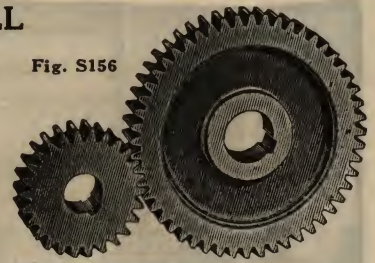
Ideal Roll Truck

Price, each.....\$40.00

ROLLER MILL GEARING

Fig. S156

Gear and Pinion to Fit Standard Sizes of Roll Journals.



PINION—Made of Bakelite Micarta Material.

Not affected by water or oil.

Not affected by most acid or alkali solutions.

Does not deteriorate.

Not attacked by rodents.

Has greater life than any other non-metallic material and when properly applied and lubricated will often outlast cast iron or brass.

Machine cut to proper size.

GEAR—Made of Cast Iron—Machine Cut.

Gear and Pinions Key-Seated for Drive Key.

When end plates are required on pinions add 10% to the Net Prices of pinions.

BAKELITE MICARTA is a non-metallic material for gear and pinion applications. It is a product of a special heavy duck of uniform weave, thickness and tensile strength, bonded together with Bakelite by heating while under an enormous pressure.

LUBRICATION

It is essential that Bakelite Micarta gears be well lubricated. The life of a well-lubricated gear is from two to five times as great as the life of non-lubricated gear in similar service. This is especially noticeable where the duty is heavy. A heavy graphite grease is recommended.

SIZES AND NET PRICES

Diameter Rolls	Differential		Face	Teeth	Price Each Net
6 inch	2½ to 1	Gear.....	1¾	52	\$ 7.50
		Pinion....	1¾	20	10.00
6 inch	2 to 1	Gear.....	1¾	48	7.00
		Pinion....	1¾	24	11.75
6 inch	1½ to 1	Gear.....	1¾	43	6.75
		Pinion....	1¾	29	15.00
7 inch	2½ to 1	Gear.....	2	50	8.75
		Pinion....	2	20	10.50
7 inch	2 to 1	Gear.....	2	46	8.25
		Pinion....	2	24	12.50
7 inch	1½ to 1	Gear.....	2	42	7.75
		Pinion....	2	28	15.30
9 inch	2½ to 1	Gear.....	2½	64	14.25
		Pinion....	2½	26	19.25
9 inch	2 to 1	Gear.....	2½	60	13.50
		Pinion....	2½	30	21.50
9 inch	1½ to 1	Gear.....	2½	54	12.25
		Pinion....	2½	36	30.60

ROLLER MILL BRUSHES



Fig. S126

Made with three rows of Tampico and to fit any size of Roller Mill.

SIZES AND NET PRICES, EACH

For 12" Rolls.....\$0.50	For 24" Rolls.....\$1.00
For 14" Rolls......55	For 30" Rolls.....1.25
For 16" Rolls......65	For 36" Rolls.....1.50
For 18" Rolls......75	For 42" Rolls.....1.85
For 20" Rolls......85	

ROLL BRUSHES with STEEL SUPPORTS

Without Frame or Adjustments, Otherwise Similar to Fig. S125

Fig. S127

NET PRICES, PER PAIR

For 12" Rolls.....\$1.65	For 20" Rolls.....\$3.00
For 14" Rolls.....1.95	For 24" Rolls.....3.25
For 15" Rolls.....2.20	For 30" Rolls.....3.75
For 16" Rolls.....2.45	For 36" Rolls.....4.25
For 18" Rolls.....2.75	



GENUINE DUFOUR SILK BOLTING CLOTH

Fig. BC100



We Handle DuFour Bolting Silk exclusively, believing it to be superior to any other make. The satisfaction obtained from its use confirms this belief.

NET PRICES "DU FOUR" SILK PER YARD, 40 INCHES WIDE

Number	Number of Meshes to Lineal Inch of Stand. X and XX Silk	Standard	Extra Heavy X	Double Extra Heavy XX	Triple Extra Heavy XXX
0000	18	\$2.45		\$2.95	
000	23	2.55		3.00	
00	29	2.60		3.10	
0	38	2.65		3.20	
1	48	2.75		3.30	
2	54	2.85		3.45	
3	58	3.00		3.60	
4	62	3.10		3.80	
5	66	3.20		3.95	
6	74	3.40	\$3.75	4.10	\$4.35
7	82	3.55	3.90	4.30	4.55
8	86	3.90	4.25	4.55	4.80
9	97	4.20	4.60	4.85	5.05
10	109	4.60	4.90	5.15	5.35
11	116	4.85	5.20	5.40	5.65
12	125	5.20	5.50	5.90	6.10
13	129	5.40	5.80	6.30	6.50
14	139	5.70	6.10	6.70	6.90
15	150	6.10	6.75	7.15	7.50
16	157	6.75	7.30	8.00	8.50
17	163	7.50	8.00		9.50
18	166	9.00			11.40
19	169	10.15			
20	173	11.20			
21	178	12.00			
25	200	14.00			

The comparative difference in the various grades of Bolting Cloth is as follows: Extra Heavy Silk, or X, is one grade heavier than Standard Silk; Double Extra Heavy Silk, or XX, is one grade heavier than X; Triple Extra Heavy Silk, or XXX, is one grade heavier than XX.

NET PRICES "DU FOUR" GRIT-GAUZE AND XXX GAUZE

Grit-Gauze and Triple Extra Grit-Gauze are made in all even numbers from 14 to 72, 30 numbers in all, 40 inches wide.

Grit-Gauze is one grade heavier than XXX Silk, and XXX Grit-Gauze is about three grades heavier than Grit-Gauze.

Grit-Gauze, all numbers, per yard. \$4.65
XXX Grit-Gauze, all numbers, per yard. \$5.75

MAKING UP BOLTING CLOTHS

Sieve Cloths to 20", per lineal ft.	\$0.15
Sieve Cloths 21" to 40" incl., per lineal ft. . . . .	.20
Sieve Cloths over 40" wide, per lineal ft. . . . .	.35
Sifter Cloths for Great Western, Nordyke, Fraser,	
Sprout Waldron, each. . . . .	.25

(Prices for hooks and eyes are in addition to regular making-up charges.)

Comparison of sizes of Standard Bolting Silk with Grit-Gauze and Wire Cloth.

The bold-faced figures in Grit-Gauze and XXX Grit-Gauze are exact equivalents of Standard Silk.

Numbers of Standard Silk	Numbers of Grit-Gauze	Meshes to Lineal Inch of Grit-Gauze	Numbers of XXX Grit-Gauze	Meshes to Lineal Inch of XXX Grit-Gauze	Meshes to Lineal Inch of Wire Cloth
0000	16	15½	14	13½	16
	18	17½	16	15½	
000	20	19	18	17½	22
	22	21	20	19	
	24	23	22	21	
00	26	25	24	23	28
	28	27	26	25	
	30	29	28	27	
0	34	33	30	29	30
	36	35	32	31	
	38	37	34	33	
	40	39	36	35	
	42	40½	38	37	
1	44	42½	40	39	36
	46	44½	42	40½	
	48	46½	44	42½	
2	50	48½	46	44½	50
	52	50½	48	46½	
3	54	52½	50	48½	54
	56	54½	52	50½	
4	58	56½	54	52½	60
	60	58	56	54½	
5	62	60	58	56½	64
	64	62	60	58	
6	66	64	62	60	70
	68	66	64	62	
7	70	68	66	64	80
	72	72	68	66	90

BOLTING CLOTH WEBBING

For Use in Making Up Bolting Cloths, for Reels, Purifiers, Sifters, etc.

Bolts contain 150 yards

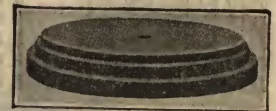


Fig. BC101

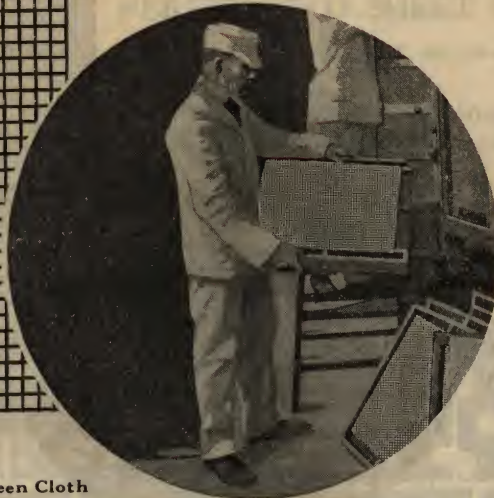
Width Inches	Net Price Per Yard	Net Price Per Bolt	Width Inches	Net Price Per Yard	Net Price Per Bolt
½	\$0.03	\$3.80	2½	\$0.09	\$9.70
¾	.04	4.25	3	.10	10.93
1	.04½	4.85	3½	.11½	12.75
1¼	.05	5.65	4	.13	14.55
1½	.05½	6.25	4½	.15	16.40
1¾	.06	6.88	5	.16	18.20
2	.07½	8.55	5½	.18	20.00

Round and Centrifugal Reels and Purifiers, per lineal ft.	\$0.35
Hexagon Reels, per lineal ft. . . . .	.50
Octagon Reels and Little Wonder, one piece, per lineal ft. . . . .	.75
Little Wonder (per set) per lineal ft.	1.00
Hooks, per lineal ft. . . . .	.15
Eyes, per lineal ft. . . . .	.10



Fig. BC102

"Tyler" Tinned Mill Screen Cloth



"TYLER" TINNED MILL SCREEN CLOTH

The Most Durable and Satisfactory Wire Cloth on the Market.

This list applies to what is termed "Plated Mill Screen Cloth," in which steel wire is used, tin-coated. This prevents rust and affords a polished surface which is less liable to clog than ordinary wire cloth.

This wire is recommended for coarse or medium fine bolting of dry materials.

Stock widths 24 and 36 inches.

GENERAL SPECIFICATIONS AND NET PRICES

Number Meshes Per Lineal Inch	Net Price Per Square Foot	Diameter of Wire Decimal of an Inch	Gauge of Wire Washburn and Moen Gauge	Size of Opening Decimal of an Inch	Number Meshes Per Lineal Inch	Net Price Per Square Foot	Diameter of Wire Decimal of an Inch	Gauge of Wire Washburn and Moen Gauge	Size of Opening Decimal of an Inch
2	\$0.14	.054	17	.446	20	\$0.25	.014	30	.0360
3	.14	.041	19	.202	22	.27	.0135	31	.0320
4	.15	.035	20	.215	24	.32	.013	32	.0287
5	.15	.032	21	.188	26	.32	.011	33	.0275
6	.16	.028	22	.139	28	.34	.010	34	.0257
7	.18	.028	22	.115	30	.36	.0095	35	.0238
8	.18	.025	23	.100	32	.36	.009	36	.0223
9	.18	.023	24	.088	34	.41	.009	36	.0204
10	.20	.020	25	.080	36	.41	.009	36	.0188
12	.20	.018	26	.065	40	.50	.0085	37	.0165
14	.23	.017	27	.054	45	.54	.008	38	.0142
16	.23	.016	28	.0465	50	.59	.0075	39	.0125
18	.23	.015	29	.0406	60	.77	.0065	41	.0102

When ordered in quantities of fifty lineal feet or more of any one mesh and width, a discount from above prices will be allowed.

REEL COVERS AND SIFTER CLOTHS

We make up complete with webbing ready to attach at the following prices:

Webbing—When Webbing is attached to edges the charge will be 20 cents per lineal foot of webbing attached. If the reel cloth is 7 ft. long and 8 ft. wide, there would be 30 lineal feet of webbing required at 20 cents per lineal ft., which amounts to \$6.00 to which would be added the price for seams, in this case two seams are required, or \$2.00, making a total for making up cloth of \$8.00. When no seams are required there is no charge for seams.

Joining—1 Seam Soldered.....\$1.50
2 Seams Soldered.....2.00
3 Seams Soldered.....2.50

Hooks and Eyes—Price additional is 15 cents per lineal foot on part of webbing attached.

Purifier Cloths—1 Seam \$0.75. Each additional Seam, \$0.35.

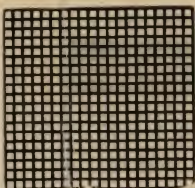
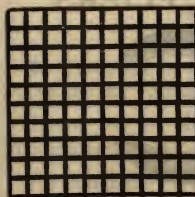
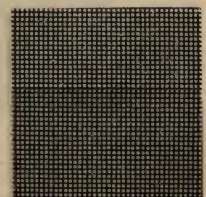
"TYLER" BRASS WIRE CLOTH

Stock sizes of brass wire cloth 36 inches wide.

In addition to the sizes listed we can supply brass wire cloth in all meshes up to 250 mesh, in 24, 30 and 36-inch widths. Write for prices.

GENERAL SPECIFICATIONS AND NET PRICES

Mesher per Lineal Inch	Net Price per Square Foot	Diam. of Wire Decimal Inches	Size Opening Decimal Inches	Mesher per Lineal Inch	Net Price per Square Foot	Diam. of Wire Decimal Inches	Size Opening Decimal Inches
10	\$0.59	.025	.075	90	\$1.35	.00525	.0059
12	.59	.023	.060	100	1.58	.0045	.0055
14	.59	.020	.051	110	1.67	.004	.0051
16	.59	.018	.0445	120	1.80	.0037	.0046
18	.54	.017	.0386	130	2.03	.0034	.0043
20	.54	.016	.0340	140	2.25	.0029	.0042
22	.54	.015	.0305	150	2.45	.0026	.0041
24	.59	.015	.0267	160	2.70	.0025	.0038
30	.63	.0135	.0198	170	3.15	.0024	.0035
35	.59	.011	.0176	180	3.60	.0023	.0033
40	.63	.010	.0150	190	3.83	.0022	.0031
45	.77	.0095	.0127	200	4.05	.0021	.0029
50	.77	.009	.0110	220	6.75	.0017	.0028
60	.77	.008	.0087	240	8.55	.0016	.0026
70	.90	.007	.0073	250	9.00	.0016	.0024
80	1.13	.00575	.0068				

Fig. BC103
20x20 Mesh
.016 BrassFig. BC104
10x10 Mesh
.025 BrassFig. BC105
90x90 Mesh
.005 BrassFig. BC106
40x40 Mesh
.009 Brass

"TUF-TEX" LIGHT WIRE BOLTING CLOTH

Tuf-Tex Light Wire Bolting Cloth is remarkable for its ability to give long service. It will outlast any other type of bolting cloth.

The tough special composition wire of which Tuf-Tex is woven withstands the abrasion of sharp stock and is not subject either to rust or corrosion.

This durable bolting cloth is showing very profitable returns when used on bolters and sifters.

Can be furnished in all widths 24 to 48 inches.



Fig. BC107
"Tuf-Tex" Light Tinned Wire Cloth

COMPARATIVE TABLES AND NET PRICES

Mesh Tuf-Tex	Opening Inches	Equal to		Equal to Silk No.	Price Net per Sq. Ft.	Mesh Tuf-Tex	Opening Inches	Equal to		Equal to Silk No.	Price Net per Sq. Ft.
		Grit Std.	Gauze XXX					Grit Std.	Gauze XXX		
16	.0535	14	..	....	\$0.32	50	.0145	46	42	....	\$0.72
18	.0465	16	14	0000	.32	52	.0137	48	41	....	.72
20	.0410	18	16	....	.36	54	.0130	50	46	2	.77
24	.0342	22	20	....	.45	58	.0127	..	..	....	.81
26	.0309	24	22	....	.45	60	.0122	54	50	3	.81
28	.0282	26	24	00	.45	62	.0116	56	52	....	.86
30	.0269	28	26	....	.45	64	.0111	58	54	4	.86
32	.0247	30	28	....	.45	66	.0106	60	56	5	.90
34	.0229	32	..	....	.50	70	.0103	64	60	....	.90
36	.0213	34	30	0	.50	72	.0099	..	..	....	.99
38	.0199	36	32	....	.54	74	.0095	66	62	6	.99
40	.0185	38	34	....	.54	76	.0092	68	64	....	.99
42	.0183	..	..	....	.59	78	.0088	70	66	7	1.08
44	.0172	40	36	....	.59	80	.0085	72	70	8	1.08
46	.0162	42	38	....	.68	84	.0079	..	..	....	1.22
48	.0153	44	40	1	.68	94	.0066	..	..	....	1.67

When ordered in quantities of fifty lineal feet or more of any one mesh and width a discount from above prices will be allowed.

BRAN DUSTER WIRE CLOTH

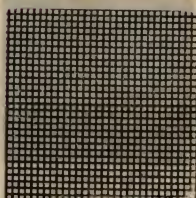


Fig. BC108
30x30 Mesh. .014
Bran Duster

Bran Duster Wire Cloth is made of heavier wire than regular milling cloth. It is coated with black varnish which prevents rust and facilitates the bolting.

Stock Width—18 inches.

Stock Sizes Listed at New Prices, per square foot.

Number Meshes Per Lineal Inch	Net Price Per Square Foot	Diam. of Wire in Decimal of an Inch	Size of Opening in Decimal of an Inch
35	\$0.41	.013	.0156
40	.50	.011	.0140
45	.81	.010	.0122
50	.90	.0095	.0105
55	.90	.009	.0092
60	.90	.0075	.0092

Fig. BC109
60x60 Mesh. .0075
Bran Duster

MAGNETIC TACK HAMMER

No. 5 V. & B.



Fig. S131

Length Head, 4 $\frac{3}{4}$ inches.
Length over all 11 $\frac{1}{2}$ inches.
Weight each, 9 ounces.

Price each, net.....\$1.00

CLOTH STRETCHING PLIERS

(Pressed Steel)



Fig. S132

For use in attaching bolting clothes to sieves and reels.
Length, 5 inches.

Price each, net.....\$0.30

PERFORATED SHEET METAL

When ordering from Stock sizes, no margins are recognized, but be sure to state size of hole wanted and if oblong or oval, say which way of the sheet you wish the perforations to run.

INSTRUCTIONS FOR ORDERING NON STOCK SIZES

1. Make a small diagram of each different size sheet of perforated metal you want. Where a sieve is composed of more than one sheet, make a diagram of each separate piece.
2. Mark on each diagram the length and width in inches, the width of the margins and the exact size of the holes.
3. If the hole is to be oval or oblong, show which way of the sheet you wish the perforations to run.
4. Give the number of pieces you wish of each size.
5. Draw an arrow on each diagram indicating the direction grain passes over sieve.
6. State the kind of metal wanted.

Sieves cannot be returned unless we are at fault.







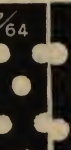



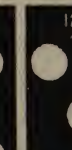

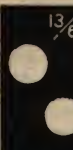



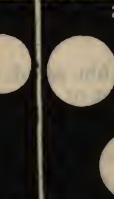
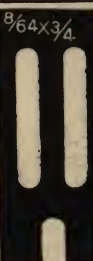
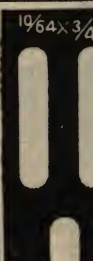

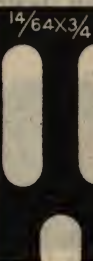

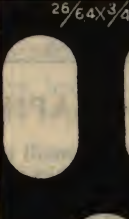

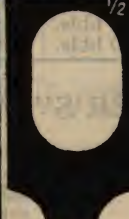
							Seed and Cockle Holes Stock Sizes Illustrated (Perforated No. 10 Zinc) Special Sizes Made to Order 66/1000, 72/1000, 75/1000, 83/1000 85/1000, 88/1000, 8 1/2/64, 9 1/2/64 Furnished in Perforated Steel to order.
							
Barley Holes Use Round Holes 9/32", 1/4" or 3/8" are good sizes. Buckwheat Holes Use Triangle Holes—All Sizes Made Special to Order 7/64, 8/64, 9/64 and 9 1/2/64 FLAX AND RICE HOLES Made up to order					Wheat Holes Eleven sizes of perforated No. 10 Zinc illustrated. Also 1/8", 1/4" and 3/8" sizes furnished from stock. Special sizes made to order 10 1/2/64, 19/64 and 21/64 Perforated Steel of all Sizes Made to Order		
			OAT HOLES Five Sizes Illustrated in Stock in No. 10 Perforated Zinc Special Sizes Made to Order 9/64 x 3/8, 9/64 x 1/2, 10/64 x 3/8, 10/64 x 1/2, 10/64 x 3/4, 11/64 x 3/8, 12/64 x 3/8, 12/64 x 1/2, 12/64 x 3/4, 14/64 x 1/2, 16/64 x 3/8, 16/64 x 1/2, 16/64 x 1, 17/64 x 3/8, 18/64 x 3/8, 19/64 x 3/8, 20/64 x 3/8, 21/64 x 3/8, 23/64 x 1, 23/64 x 1 1/2 Perforated Steel Made to Order—All Sizes				
CORN HOLES Three Sizes Illustrated in Stock—Also Round Holes 5/8, 1 1/8, 3/4, 7/8 and 1 inch In No. 10 Perforated Zinc Special Sizes Made to Order 24/64 x 3/8, 24/64 x 1/2, 30/64 x 27/32, 32/64 x 1 1/8, 32/64 x 1 1/2, 36/64 x 3/8, 40/64 x 3/4, 44/64 x 1 All Sizes Perf. Steel Made to Order							

Fig. BC110

PERFORATED ZINC

Carried in Stock for Immediate Shipment
 Stock Sizes Illustrated

No Margins

No. 10—Zinc in sheets 36x84 inches.

Price net per lineal foot, 36 inch width (3 sq. ft.).....\$0.90

Pieces cut to size, charges are based on 36 inch width.
 Minimum charge is \$1.00.

For example—A piece 29 x 24 inches is charged as a piece 36x24 inches, or 6 sq. feet, \$1.80.

Price net per sheet 36x84 inches—one size of hole only to each sheet.....\$5.00

MADE TO ORDER SIZES

No. 26 Gauge Perforated Steel or No. 10 Zinc
 In Any Size Pieces, Steel up to 42x120 inches. Zinc up to 44x126 inches

(Minimum charge).....\$4.00
 Price, net. Perforations 10/64 and larger. Per sq. ft.....65
 Price, net. Perforations 9/64 and smaller. Per sq. ft....70

Heavier Gauge Steel Than Standard

24 gauge, per square ft.....\$0.75
 22 gauge, per square ft.....80

We can furnish Wood Frames for Perforated Metal or Wire Cloth.

Price, net, per square ft., Frame only.....\$0.75
 Crating charge.....50

IDEAL FEEDER AND MIXER

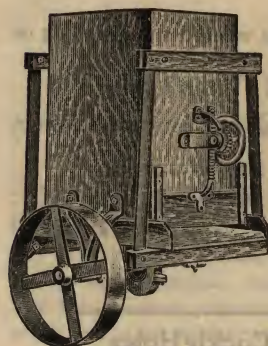


Fig. M137

This Feeder and Mixer is equipped with a new, improved Feed-gate setting device, by which the machine can be instantly adjusted to feed any desired quantity.

These machines are also used in connection with the combined sifter and mixer for the purpose of feeding the desired proportions of the different kinds of material to be mixed. They can be regulated to feed from 5 pounds to 10 barrels per hour. It requires one feeder for each kind of material to be mixed.

SIZES, DIMENSIONS AND NET PRICES

Size No.	Width Inches	Depth Inches	Height Inches	Speed R.P.M.	Pulley Dia. Face	Capacity per Hour		Price, Each Net
						Lbs.	Bbls.	
1	18	20	28	50	12x2	5	to 10	\$25.00
2	23	23	30	50	12x2	8	to 15	27.50
3	27	27	54	50	12x3	15	to 25	30.00

"GARDNER'S" PATENT RAPID SIFTER

Fitted with patent designed brush in adjustable bearings. Will sift any kind of dry powder; also reduce any that may have become lumpy, such as tartaric acid, bicarbonate of soda, sulphate of magnesia, arrowroot, icing sugar, sulphur, flour, colors, etc., at one operation.

The spout at tail end of sifter is provided for automatically throwing out all hard foreign matter, thus preventing damage to the sieve through choking up, or the necessity of taking the whole machine apart to clean this out, as with other makes of machines. Any number of sieves can be supplied to suit special cases.

This style machine can be placed over trough, bin, spout, or other place desired, or can be furnished with a receiving box or drawer, and is constructed for any mixing capacity. Furnished with any size mesh sieve up to No. 60. State size when ordering.

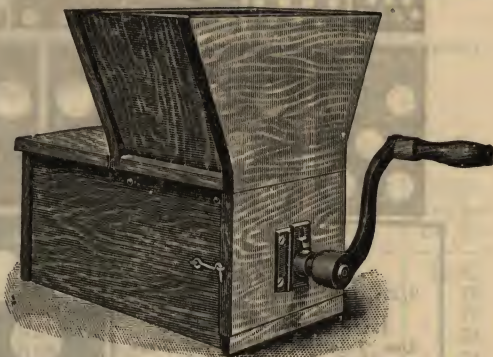


Fig. M138

SIZES, DIMENSIONS, CAPACITIES AND NET PRICES—F. O. B. Factory

FOR HAND

Size	Length of Cylinder Inches	Diameter of Cylinder, Inches	Capacity per Hour	Size of Pulley Inches	Shipping Weight, Lbs.	Net Price, Each
B	16	6	4 bbls.	.....	50	\$36.00

FOR POWER

D	24	8	7 bbls.	10x3	100	\$45.00
E	30	8	10 bbls.	10x3	100	49.50
F	30	10	24 bbls.	12x3½	125	63.00
G	36	10	30 bbls.	12x3½	125	81.00
H	36	12	40 bbls.	14x4	150	90.00

FOR HAND

Size	Length of Cylinder, Inches	Diameter of Cylinder, Inches	Capacity, per Hour	Size of Pulley, Inches	Shipping Weight, Lbs.	Net Price, Each
C	20	6	6 bbls.	.....	75	\$40.50

FOR POWER

I	42	12	50 bbls.	14x4	200	\$ 99.00
J	42	14	60 bbls.	15x5	250	103.50
K	42	16	70 bbls.	15x5	250	112.50
M	48	18	90 bbls.	18x6	350	135.00
O	48	20	120 bbls.	24x6	400	162.00

"GARDNER'S" PATENT COMBINED "RAPID" SIFTER AND MIXER

Developed to meet the demand for a small capacity, dependable mixer for grocers, coffee and chickory merchants, confectioners, chemists, druggists, perfumers, makers of self-rising, baking, tooth, Sedlitz, conditioning and face powders, snuff, cattle and poultry foods, spices, colors, etc. Suitable for all work where dry and lumpy ingredients are to be thoroughly broken up, sifted and blended together in one operation.

Furnished with any size mesh up to 60 mesh. Finer mesh at extra charge. Pulleys for power at extra charge.

SIZES, DIMENSIONS, CAPACITIES AND NET PRICES—F. O. B. Factory

HAND POWER

Size	Extreme Length	Extreme Width	Extreme Height	Diameter of Cylinder	Length of Cylinder	Capacity in Flour, lbs.	Capacity Continuous Flow per Hour, bbls.	Diameter of Brush Cylinder	Shipping Weight, lbs.	Net Price, Each with Sifter	Net Price, Each Without Sifter
AA	2' 4"	1' 4"	2' 5"	9"	1' 4"	20	2	4"	100	\$54.00	\$40.00
A	2' 8"	1' 10"	3' 3"	12"	1' 4"	30	4	6"	120	67.50	48.00
B	3' 8"	1' 10"	3' 3"	12"	2' 4"	50	6	6"	175	81.00	64.00



Fig. M139

"GARDNER'S" PATENT "RAPID" MIXER

Furnished With or Without Sifter

This is without doubt the most perfect machine of its kind on the market, and supplies a long-felt want for bakers, grocers, coffee and chicory merchants, confectioners, manufacturing chemists and druggists, perfumers, makers of self-rising, baking, tooth, Seidlitz conditioning and face powders, snuff, cattle and poultry feeds, spices, colors, etc. It is suitable for any sifting and mixing where dry and lumpy ingredients are to be thoroughly broken up, sifted and blended together quickly and in one operation.

State size mesh wire sieve wanted when ordering.

Furnished with any size mesh wire up to 60; finer than 60 mesh at slight extra charge.

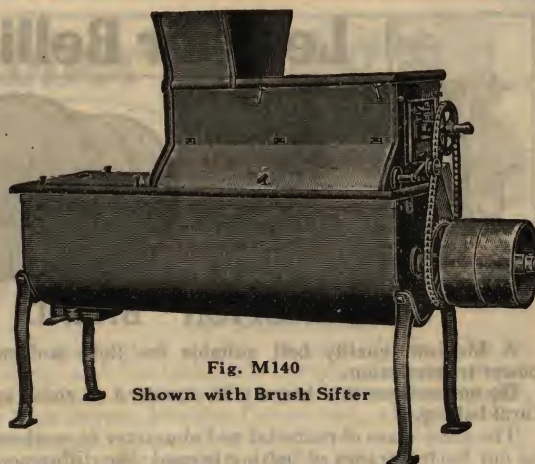


Fig. M140

Shown with Brush Sifter

SIZES, DIMENSIONS, CAPACITIES AND NET PRICES—F. O. B. Factory

Size	*Extreme Length	*Extreme Width	*Extreme Height	Capacity in Flour per Charge	Capacity Continuous Flow per Hour	Height to Center of Pulleys	Size of T. & L. Pulleys	Speed R.P.M.	Horse Power	Shipping Wt., Lbs. With Sifter	Shipping Wt., Lbs. Without Sifter	Net Price, Plain Iron With Sifter	Net Price, Galvanized Iron, With Sifter	Net Price, Plain Iron Without Sifter	Net Price, Galvanized Iron, Without Sifter
C	ft. in.	ft. in.	ft. in.	lbs.	bbls.	in.	in.	50	3/4	350	200	\$112.50	\$126.00	\$ 88.00	\$100.00
D	4-0	2-2	4-11	75	6	29	12x3	45	1	450	350	144.00	162.00	96.00	112.00
E	4-10	2-2	4-11	100	8	29	14x4	45	1	500	425	162.00	180.00	104.00	120.00
F	6-6	2-2	5-0	150	10	29	14x4	45	1	500	425	162.00	180.00	104.00	120.00
G	5-9	2-0	5-3	200	20	27	18x5	40	2	700	600	189.00	216.00	120.00	140.00
H	7-8	2-0	5-3	300	25	27	20x5	40	2	900	700	225.00	252.00	160.00	184.00
I	7-2	2-10	5-9	400	35	28	20x6	35	2 1/2	1000	850	270.00	306.00	192.00	224.00
	8-0	2-10	5-9	500	45	28	20x6	35	3	1450	1100	292.50	337.50	220.00	260.00

*Dimensions and horse power are for Sifter and Mixer Combined.

"GARDNER'S" PATENT "RAPID" MIXER

Furnished Either With or Without Sifter



Fig. M141

Showing Mixer Only Without Sifter

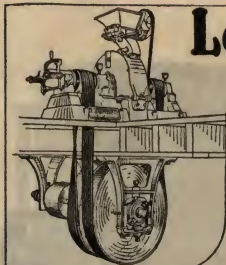
This machine is similar to that shown above, but it is built more massive and powerful for handling large quantities of powder and for larger capacity. It will reduce lumps and mix all classes of dry powders. It is built for heavy and severe service and is absolutely dust-proof.

Is especially adapted for sifting and mixing flour, baking powder, tooth and face powder; in fact, any material of a dry powdery nature, where large quantities are dealt with and where the material must be accurately and quickly sifted and mixed without loss through escaping dust.

SIZES, DIMENSIONS, CAPACITIES AND NET PRICES—F. O. B. Factory

Size	*Extreme Length	*Extreme Width	*Extreme Height	Capacity in Flour Per Charge	Capacity in Cubic Feet	Height to Center of Pulley	Size of Pulley	Pulley Speed R.P.M.	Horse Power	Shipping Wt. Without Sifter	Shipping Wt. With Sifter	Net Price, Plain Iron Without Sifter	Net Price, Galv. Iron Without Sifter	Net Price, Plain Iron With Sifter	Net Price, Galv. Iron With Sifter
JJ	ft. in.	ft. in.	ft. in.	lbs.		in.	in.	120	2	lbs.	lbs.	\$288.00	\$328.00	\$378.00	\$414.00
J	11-7	3-4	5-4	600	21.98	18	22x5	100	2 1/2	1300	1650	336.00	384.00	414.00	468.00
K	12-7	3-6	5-7	800	30.40	18	24x5	100	3	1500	1800	380.00	440.00	472.50	540.00
L	12-8	4-0	6-0	1000	39.20	18	24x5	100	3	1800	2000	400.00	460.00	522.00	594.00
M	12-6	4-10	6-9	1500	52.95	24	30x6	80	4	2300	2500	512.00	576.00	630.00	698.00
N	15-0	4-10	6-9	2000	70.60	24	30x6	80	5	3000	3200	680.00	760.00	810.00	900.00
O	15-2	5-3	7-8	3000	96.20	24	30x6	75	8	4500	4800	800.00	960.00	990.00	1080.00
	16-6	6-0	8-8	4000	125.65	24	30x8	75	10	6000	6400				

*Dimensions and horse power are for Sifter and Mixer Combined.

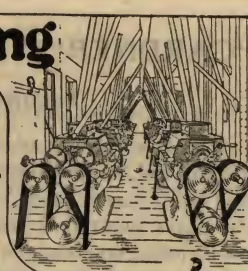


Leather Belting Leather Belting

All of Our Belting is Guaranteed Against Defective Workmanship or Material.



No Better Belt Made Than "Honesty" Brand Leather Belting



"SATISFACTION" BRAND

A Medium quality belt suitable for light and medium power transmission.

Do not confuse this brand with standard or cheap agricultural belting.

The same class of material and character or workmanship as our better grades of belting is used, the difference being that the stock used is of a lower cut in the hide.

We will oil dress and rivet laps without extra charge when desired.

Single "Satisfaction"
Fig. B100

Size Inch	Price Foot	Size Inch	Price Foot
3/4	\$.08	2 3/4	\$.30
1	.11	3	.33
1 1/4	.14	3 1/2	.38
1 1/2	.16	4	.44
1 3/4	.19	4 1/2	.49
2	.22	5	.55
2 1/4	.25	6	.66
2 1/2	.27		

Double "Satisfaction"
Fig. B101

Size Inch	Price Foot	Size Inch	Price Foot
1	\$.19	4	\$.77
1 1/2	.29	4 1/2	.86
2	.38	5	.96
2 1/2	.48	6	1.15
3	.58	7	1.34
3 1/2	.67	8	1.54

"SHORT LAP" BRAND

SHORT LAP



No Piece of Leather used in our belting, no matter what grade, will be over 4 feet and 2 inches long. This is what is termed "Short Lap" Belting. It eliminates the use of soft or spongy stock.

Excellent quality belt suitable for most forms of power transmission.

Single "Short Lap"
Fig. B102

Size Inch	Price Foot	Size Inch	Price Foot
3/4	\$.11	3	\$.47
1	.15	3 1/2	.55
1 1/4	.19	4	.69
1 1/2	.23	4 1/2	.77
1 3/4	.27	5	.86
2	.30	6	1.03
2 1/4	.34	7	1.20
2 1/2	.38	8	1.37
2 3/4	.42		

Double "Short Lap"
Fig. B103

Size Inch	Price Foot	Size Inch	Price Foot
1	\$.26	4	\$.102
1 1/2	.38	4 1/2	1.15
2	.51	5	1.28
2 1/2	.64	6	1.54
3	.77	7	1.79
3 1/2	.90	8	2.05

ENDLESS BELTS

ENDLESS BELTS or belts with PREPARED LAPS furnished promptly, in all qualities, at an additional charge of one foot for belts under 9 inches wide. For belts 9 inches wide and over charge is 4 inches plus the width of the belt.

In ordering state only the exact length around pulleys and whether endless or prepared laps are desired.

"HONESTY" BRAND

Our "Honesty" Brand of Leather Belting represents the equal of the highest quality of leather belting that can be made. Cut from the center portion of special selected hides, and put together by skilled workmen making it the strongest and most serviceable belting that can be produced for all forms of medium, heavy or severe power transmission.

Single "Honesty"
Fig. B104

For Roller Mills, Continuous Belt Drive Attrition Mills, Saw Mills and places where high tension and speed is required.

Size Inch	Price Foot	Size Inch	Price Foot
1	\$.17	5	\$.96
1 1/2	.25	6	1.15
2	.33	7	1.34
2 1/2	.42	8	1.54
3	.53	9	1.73
3 1/2	.62	10	1.92
4	.77	12	2.30
4 1/2	.86		

Extra Heavy Single
"Honesty"
Fig. B105

Especially adapted for Roller and Attrition Mills, etc.

Size Inch	Price Foot	Size Inch	Price Foot
3	\$.64	3 1/2	.74
4	.85	4 1/2	.96
5	1.06	6	1.28
7	1.50	8	1.70
9	1.91		

Double "Honesty"
Fig. B106

For Main and Counter Drives, Double Belt Drive, Attrition Mills, Saw Mills and Electric Light Plants, etc.

Size Inch	Price Foot	Size Inch	Price Foot
2 1/2	\$.72	9	\$.259
3	.86	10	2.88
3 1/2	1.00	12	3.46
4	1.15	14	4.03
4 1/2	1.30	16	4.61
5	1.44	18	5.18
6	1.73	20	5.76
7	2.02	22	6.34
8	2.30	24	6.91

"ROLLER MILL" BRAND

A high grade Dynamo Belt which is specially made for use on Motors, Dynamos, Single Stand, Double Stand, Two Pair High and Three Pair High Roller Mills.

Roller Mill—Fig. B107

Size Inch	Price Foot	Size Inch	Price Foot
3	\$.66	7	\$.153
4	.88	8	1.75
4 1/2	.99	10	2.19
5	1.09	12	2.63
6	1.31		



GUMP'S WATERPROOF LEATHER BELTING

For Use in Damp and Wet Places

Gump's Waterproof Leather Belting is guaranteed not to be affected by coming in contact with water or oils while running on pulleys.

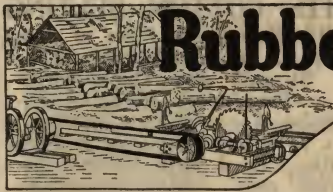
Single Waterproof
Fig. B108

Size Inch	Price Foot	Size Inch	Price Foot
1	\$.18	4 1/2	\$.95
1 1/2	.28	5	1.06
2	.37	6	1.27
2 1/2	.46	7	1.48
3	.59	8	1.69
3 1/2	.69	9	1.90
4	.85	10	2.11
		12	2.53

Double Waterproof
Fig. B109

Size Inch	Price Foot	Size Inch	Price Foot
2 1/2	\$.79	6	\$.190
3	.95	7	2.22
3 1/2	1.11	8	2.53
4	1.27	9	2.85
4 1/2	1.43	10	3.17
5	1.58	12	3.80

Guaranteed Absolutely Waterproof



Rubber Belting Rubber Belting

"MILLER'S DELIGHT" BRAND



A High Grade Rubber Covered Belting Adapted to General All-Round Transmission

No better belt can be recommended for all-round work than "Miller's Delight" Brand. Constructed of high grade duck, with an excellent friction and Rubber covered. Guaranteed to give satisfaction in service for which a Rubber Belt is adapted.

NET PRICES PER FOOT—Fig. B110

Width—Inches	3 Ply	4 Ply	5 Ply	6 Ply
2.....	\$0.14	\$0.17		
2½.....	.17	.20		
3.....	.20	.23		
3½.....	.23	.27		
4.....	.25	.30		
4½.....	.28	.33		
5.....	.31	.37	\$0.46	\$0.55
6.....	.37	.44	.55	.66
7.....		.51	.64	.77
8.....		.55	.69	.83
10.....		.69	.86	1.04
12.....		.83	1.04	1.24
14.....		.97	1.21	1.45



"EXTRA STANDARD" BRAND

A very good Belting of medium weight. Suitable for medium transmission purposes or for elevator belting.

The quality is in every way as good as any of the other grades, the only difference being in the weight of the material. Constructed of medium weight duck with a good grade of friction.

NET PRICES PER FOOT—Fig. B111

Width—Inches	2 Ply	3 Ply	4 Ply	5 Ply	6 Ply
1.....	\$0.05	\$0.06			
1¼.....	.07	.08			
1½.....	.08	.09	\$0.11		
2.....	.10	.12	.14		
2½.....	.13	.14	.17		
3.....		.17	.20		
3½.....		.20	.23		
4.....		.21	.25		
4½.....		.23	.28	\$0.35	
5.....		.26	.31	.38	\$0.46
6.....		.31	.37	.46	.55
7.....		.37	.43	.54	.65
8.....		.39	.46	.58	.69
9.....			.52	.65	
10.....			.58	.72	.86
11.....			.63	.79	
12.....			.69	.86	1.04
13.....			.75	.94	
14.....			.81	1.01	1.21
15.....			.86	1.08	
16.....			.92	1.16	1.39



"HEVI-DUTY" BRAND

Friction Surface Adapted for Heavy Duty and Severe Service

Made of the highest quality of extra heavy specially woven duck, with the best grade of rubber friction between the plies. Adapted to most all forms of power transmission, such as Main Drives, Machine Drives, etc., where a belt of extreme strength and stability is required.

NET PRICES PER FOOT—Fig. B112

Width Inches	3 Ply	4 Ply	5 Ply	6 Ply	Width Inches	4 ply	5 ply	6 ply
2.....	\$0.16	\$0.19			7.....	\$0.60		
2½.....	.20	.24			8.....	.65	\$0.81	\$0.97
3.....	.23	.27			10.....	.81	1.01	1.21
3½.....		.32			12.....	.97	1.21	1.45
4.....		.34			14.....	1.13	1.41	1.70
5.....		.43	\$0.54		16.....	1.29	1.62	1.94
6.....		.51	.64	\$0.77				

"HIGH SPEED SPECIAL" BRAND

Net Prices Per Foot—Fig. B113

Particularly adapted for use on wood-working machinery, saw and lumber mills, paper mills, mines, etc.; also on roller mills, blowers, on threshing rigs and silo fillers, motors, fans, or any form of service using high speed and small pulleys.

Width Inches	5 Ply	7 Ply
2.....	\$0.28	
2½.....	.34	
3.....	.39	
4.....	.49	\$0.69
5.....	.61	.86
6.....	.73	1.03
8.....	.93	1.30

5 Ply = Single Leather. 7 Ply = Light Double Leather.

BALATA BELTING

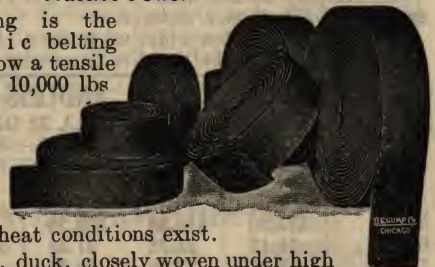
High Tensile Strength, Waterproof, Flexible, Great Tractive Power

Balata Belting is the strongest fabric belting made. Tests show a tensile strength of over 10,000 lbs to the square inch. It is waterproof and suitable for use either outdoor or inside, except where excessive heat conditions exist.

Made of 40 oz. duck, closely woven under high tension, impregnated with pure Balata Gum.

NET PRICES PER FOOT—Fig. B114

Width Inches	3 Ply	4 Ply	Width Inches	3 Ply	4 Ply	5 Ply	6 Ply
1.....	\$0.09		4.....	\$0.37	\$0.49	\$0.61	\$0.73
1¼.....	.12		4½.....	.41	.55	.69	.83
1½.....	.13	\$0.18	5.....	.46	.61	.77	.92
1¾.....	.16	.21	6.....	.55	.73	.92	1.10
2.....	.18	.24	7.....		.86	1.07	1.29
2½.....	.23	.31	8.....		.97	1.22	1.47
3.....	.28	.37	10.....		1.22	1.53	1.84
3½.....	.32	.43	12.....		1.47	1.84	2.20



Elco Red Stitched Canvas Belting



**FIRST QUALITY—
PERFECT CONSTRUCTION**

Combines Strength,
Durability and Economy

"Elco" red stitched canvas belting is made of heavy weight tightly woven cotton duck, folded and lock-stitched every quarter inch across the width of the belt. It is waterproofed with a combination of oils and gums which preserves the fabric and renders it pliable under any climatic condition.

Elco Stitched Canvas Belting—Fig. B115

Width—Inches	Net Price Per Foot			
	4 Ply	5 Ply	6 Ply	8 Ply
1½	\$0.10			
2	.13			
2½	.16			
3	.18		\$0.27	
3½	.21			
4	.23	\$0.28	.34	
4½	.25			
5	.28	.35	.42	
6	.33	.42		
7	.39	.49	.59	
8	.42	.52	.63	\$0.83
9	.47	.59	.70	
10	.52	.65	.78	1.04
12	.62	.78	.94	
14	.73	.91	1.09	1.46
16	.83	1.05	1.25	
18	.94	1.17	1.41	1.87
20		1.30	1.56	2.08
24			1.87	2.48
30			2.34	3.11

Extra Charge for Making Belts Endless

When canvas belts are to be made endless, an extra charge is made as follows:

All belts 16 inches wide or less, the charge is equal to seven feet of belt size ordered.

Belts over 16 inches wide, we make a charge equal to an additional length of belting five times the width of the belt.

ELCO STITCHED CANVAS ENDLESS DRIVE BELTS EXTRA HEAVY—FULL 32 OZ. DUCK Net Prices Each—Fig. B116—(4 Ply)

Width Inches	50 Ft. Lgth.	75 Ft. Lgth.	100 Ft. Lgth.	125 Ft. Lgth.	150 Ft. Lgth.
5	\$13.50	\$19.88	\$26.25		
6	16.13	23.75	31.38	\$39.00	
7	18.88	27.88	36.75	45.75	\$54.63
8	20.38	30.13	39.63	49.25	58.88
9					66.13

Fig. B117—5 Ply

Width—Inches	125 Ft. Length	150 Ft. Length	160 Ft. Length
7	\$57.25	\$68.50	
8	61.75	73.75	\$78.63
9		82.63	88.00

Fig. B118—6 Ply

Width—Inches	150 Ft. Length	160 Ft. Length
	\$88.38	\$94.13
	99.38	105.88

SOLID WOVEN WHITE COTTON BELTING



Solid Woven, No Plies to Come Apart. Absolutely Uniform in Strength and Thickness.

For Indoor Purposes

Solid Woven Cotton Belting is put to a thousand uses in Flour Mills, Cereal Mills, Shops, Factories, etc. Elevator Belting, buckets being attached for carrying the product to the machines.

In Lumber Mills, Box Factories, Printerries, Envelope Mfrs., Brick and Pottery Factories, etc., as Carrier Belts and in Saddlery and Harness Shops.

Net Price Per Foot—Fig. B119

Width—Inches	2 Ply	3 Ply	4 Ply	5 Ply	6 Ply
1	\$0.03	\$0.04	\$0.06		
1½	.03	.05	.07		
2	.04	.06	.09		\$0.13
2½	.05	.07	.10		
3	.06	.09	.11		
3½	.07	.10	.13		
4	.08	.11	.14		
4½	.09	.12	.16		
5	.09	.13	.18	\$0.23	.28
5½	.10	.15	.19	.25	
6	.11	.16	.21	.27	.33
6½		.18	.23	.30	
7		.19	.25	.32	.40
8		.21	.28	.36	.45
9		.26	.33	.43	.53
10		.28	.37	.48	.58
11		.30	.39	.53	.64
12	.23	.32	.42	.57	.69
13		.36	.47	.61	.74
14		.39	.51	.66	.80
15			.55	.71	.85
16		.45	.58	.75	.90
18			.66	.84	1.02
20		.57	.73	.95	1.13
22			.81	1.07	1.28
24			.88	1.13	1.37
30			1.15	1.47	1.80

SOLID WOVEN WATERPROOF COTTON BELTING FOR INDOOR AND OUTDOOR SERVICE

A Solid Woven Belt—No Plies to Come Apart

The same construction as white Cotton Belting, except it is waterproof for outside as well as indoor use, retaining its flexibility at all times. Not affected by water, oils, gases or climatic conditions.

Recommended for transmitting power, conveying or elevating, saw mills, brick yards, or for outside use where belting comes in contact with the weather. It does not require belt dressing of any sort. It will also run slack without slipping.

Net Prices Per Foot—Fig. B120

Width Inches	Single Equal to 4 Ply, Net Price Per Foot	Double Equal to 6 Ply, Net Price Per Foot	Width Inches	Single Equal to 4 Ply, Net Price Per Foot	Double Equal to 6 Ply, Net Price Per Foot
2	\$0.10	\$0.16	6	\$0.30	\$0.48
2½	.13	.20	7	.35	.56
3	.15	.24	8	.40	.64
4	.20	.32	10	.50	.80
5	.25	.40	12	.60	.96

"ELCO" RUBBER ENDLESS THRESHER BELTS Always Flexible—Winter and Summer—Fully Guaranteed

Fig. B121

Lgth. Feet	W'th Ins.	Ply	Price Ea., Net	Lgth. Feet	W'th Ins.	Ply	Price Ea., Net
50	5	4	\$21.40	125	7	4	\$69.60
50	6	4	24.00	125	8	4	76.40
75	5	4	30.00	125	7	5	86.40
75	6	4	36.00	125	8	5	93.60
75	7	4	42.00	150	7	5	103.20
75	8	4	45.60	150	8	5	111.60
100	6	4	48.00	150	9	5	124.80
100	7	4	55.40	160	8	5	118.80
100	8	4	60.00	160	9	5	133.00
125	6	4	58.80	175	9	5	146.00

SOLID ROUND LEATHER BELT



Fig. B122

Made of the best solid leather. Pure oak tanned.

NET PRICE PER RUNNING FOOT

1/4 inch.....	\$0.06
5/16 inch.....	.09
3/8 inch.....	.12

STEEL BELT COUPLINGS



Fig. S112

FOR ROUND BELTS OR CORDS

NET PRICES

Diameter, 1/4 inch.	Price each.....	\$0.15
Diameter, 5/16 inch.	Price each.....	.15
Diameter, 3/8 inch.	Price each.....	.20

"MAGIC" LIQUID BELT TREATMENT



Fig. S108

Feeds the fibre and puts life back into Leather Belts. Softens hard belts, giving greater contact and increased traction; prevents slipping, waterproofs them and does not gum. The result of our persistent effort to produce a fibre-food for Leather belts. Not to be confused with ordinary belt dressing.

Each Net

Price, quart can (2 lbs.).....\$1.75

Price, gallon can (8 lbs.)..... 5.50

CRESCENT BELT FASTENERS

Fig. S113

WILL OUTLAST THE BELT

Each blue package contains 1 1/2 inch and 2 inch Crescent Plates, Rivet Holder, ample supply of Crescent Rivets and full directions for applying.

Price, per package, Net.....\$0.90

"VISCOL CLAROL" LIQUID BELT DRESSING

Preserves belts, increases friction 50 per cent, permits a much looser belt avoiding unnecessary friction; makes belts impervious to water, fumes and gases. Does not make your belt soggy.

Price, 1 1/2 pt. can, each, net.....\$0.85

Price, 4 pt. can, each, net..... 1.50



Fig. S114

"ELCO" BELT DRESSING



Fig. S109

"Elco" is Brown, the natural color of the wool fat, and is guaranteed pure. Stops the Slipping and preserves the Belts. Slipping Destroys

More Belts Than Any Other Cause.

Held to moving belt, applies just enough. Contains no rosin or mineral grease. Superior to all others.

Price per pound stick, each net.....\$0.35

Price per dozen, 1 pound sticks, net..... 3.50

"ELCO" LEATHER BELT CEMENT



Fig. S110

Made from the finest Gelatines procurable, and with a twelve-hour cook is so condensed that it takes Twice the quantity of Water to Reduce it to proper consistency for use, making One Pound Go as Far as Two Pounds of Ordinary Belt Glue.

The "Elco" is a new departure in Belt Cements on account of its Greater Adhesive Qualities.

It takes a Less Quantity to make the joint, which after being made is soft and pliable. Full directions for use on every package.

1-pound cans. Price, net per can.....\$0.90

"COBECO" WATER PROOF BELT CEMENT

Fig. S111

For splicing any leather belt but especially recommended for joining Water Proof Belts. Guaranteed not to be effected by moisture.

Price One Pound Can, Net.....\$2.00

"ELCO" FRICTION BELT PAINT

For Red Stitched Canvas Belts

An elastic paint which preserves the life of the belt, waterproofs it and increases its traction. A belt painted when stored away will retain its life and pliability and not deteriorate. Apply on both sides with common paint brush after thoroughly cleaning belt. Allow to dry before using belt. Put up in gallon cans.

Price per 1-gallon can, net.....\$2.00



Fig. S115

LE PAGE'S LIQUID GLUE

Always ready for use. For all kinds of woodwork, leather, paper, etc.

No glue pot needed, no cooking required. Once tried, always used.

NET PRICES

Size of Cans	Price per doz. Cans	Price per Can
1/2 Pint.....	\$4.00	\$0.35
1 Pint.....	6.80	.60
1 Quart.....	12.00	1.05



Fig. S116

"HOLD-HEET" ELECTRIC GLUE POTS

With Automatic Thermostat Control

Boiling takes away the life of glue and ruins its sticking qualities. Glue should never be heated above 150°, F. This is accomplished in **Hold-Heet** Automatic Glue Pots by the thermostat inside the pot. The thermostat measures out the heat just as it is required.

Glue always at proper temperature.

No possibility of over-heating or spoiling.

Minimum evaporation of water from glue.

Eight one-quart pots operated on an ordinary lighting circuit.

No water jacket to boil dry.

No special wiring needed.

ORDER BY CATALOG NUMBER

Size	Watts	110 Volts Cat. No.	220 Volts Cat. No.	Net Price Complete	Net Price Extra Inner Chamber
1-qt.....	132	G1101	G2201	\$14.00	\$2.50
2-qt.....	220	G1102	G2202	17.00	3.00
4-qt.....	330	G1104	G2204	20.00	5.00
8-qt.....	660	G1108	G2208	28.00	6.50

Be sure to select proper voltage.

Passed by National Board of Fire Underwriters, which **Saves on Insurance Premiums.**



Fig. S100

"HOLD-HEET" is your guarantee of the finest and best in Electric Glue Pots.

"HOLD-HEET" ELECTRIC GLUE POT

Air Radiation Type

A substantial, moderately priced pot for use where close temperature regulation is not essential. They operate on the air radiation principle and the inlet of current is so adjusted, that when desired operating temperature is reached, the radiation equals the heat inlet so that fairly close temperatures are maintained.



Fig. S101

Order by Catalog Number

Size	110 Volts Cat No.	220 Volts Cat. No.	Net Price
1 qt.	C. G.-1101	C. G.-2201	\$ 8.00
2 qt.	C. G.-1102	C. G.-2202	11.00

Be sure to select proper voltage. Glue Melting Pots of 150 degrees F. are shipped on all orders unless higher temperature pots are specified.

IRON SCREW BELT CLAMP AND TIGHTENER

The frame is made of rock maple, with jaws corrugated, which makes it practically impossible for belt to slip after having been properly placed in clamp.



Fig. S102

The screws are made of wrought iron, have square heads and rapid pitch.

These clamps are used for tightening and putting together large belts, and combine strength, simplicity and convenience.

SIZES AND NET PRICES

	Each
No. 270, for belts 6 to 12 inch.....	\$ 8.00
No. 271, for belts 12 to 18 inch.....	10.00
No. 272, for belts 18 to 24 inch.....	12.00
No. 273, for belts 24 to 36 inch.....	18.00

GLUE BRUSH

Made from extra quality Russian bristle 1½ in. wide, 2½ in. long.



Fig. S103

Net price, each.....\$1.25

"ROGERS" ADJUSTABLE BELT PUNCH

Telescopes and can be carried in pocket. Adjustable to cut holes ¼ to ¾ inch diameter by moving button at bottom. Is suitable for any kind of belt.

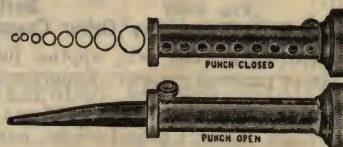


Fig. S104

Net price, each.....\$0.60

"BULL DOG" PULLEY COVERING CEMENT

Cover Your Own Pulleys, Iron or Wood. Bulldog Pulley Covering Cement will hold to either iron or wood pulleys, large or small.

Full printed directions on every can. Use your own canvas or we can supply the canvas if desired at small cost. Will keep for years if can is kept tightly closed. Regular size cans 1½ pounds, will cover 10 square feet. We recommend No. 6 duck or canvas for general use.



Fig. S106

Price, net, per can.....	\$2.00
No. 6 Canvas Ducking, per square foot.....	.12
Minimum charge for Canvas Ducking.....	.50

LEATHER PULLEY COVERING

Fig. S107

Made of high grade leather, even in thickness, any length or width.

Price per square foot, net.....\$1.25

We can cover your New Pulleys when ordered with thin high grade Leather, and guarantee the covering not to come loose, without punching rivet holes in them, thus weakening the pulley.

Net, per square foot.....\$2.00

ALLIGATOR STEEL BELT LACING

SIZES AND NET PRICES

Size Number	Kind of Belt	Length of Section	Inches in Box	Price Box Net
15	Light Leather or Fabric.....	8 in.	64	\$1.20
25F	Sgl. Leather or 3-ply Fabric.....	8 in.	48	1.15
27L	4 ply Rubber or Cotton.....	12 in.	96	2.44
35M	Double Leather, 5 and 6 ply Rubber and Cotton.....	8 in.	32	1.06
35N	Double Leather, 5 and 6 ply Rubber and Cotton.....	12 in.	48	1.56
45U	Heavy Double Leather, 6 and 8 ply Rubber and Cotton.....	12 in.	48	2.07
Extra pins, per dozen, net.....				\$0.50

Apply with a hammer, no other tools required.

Especially adapted for Rubber, Cotton and Canvas Stitched Belting.



Fig. S117

A separable lacing, hinging on a rawhide or steel pin. The flexible joint insures close contact with the pulley.

ELCO WIRE BELT LACING

Specially made by a secret process which adapts this lace for all the qualifications needed in lacing belts. All boxes contain 50 lineal feet of wire. Made in five sizes.



Fig. S118

Net Per Box

No. 00, for small belts.....	\$0.25
No. 0, for 2 to 3½ in. belts.....	.25
No. 1, for 4 to 6 in. belts.....	.30
No. 2, for 6 to 16 in. belts.....	.35
No. 3, for over 16 in. belts.....	.40



Fig. S119

NEW CLIPPER BABY BELT LACER

For use in any ordinary vise. Laces belts 4 in. wide and ¾-inch thick, in one operation.

No. 0 Net Price \$3.50

CLIPPER BELT LACING MACHINE

By the use of this machine any one can make a first-class joint, and do it quicker than by any method of lacing.

Every Mill Needs a Clipper Belt Lacer.



Fig. S120

No. 3 Clipper Belt Lacing Machine

Net Price, each.....\$25.00

RAWHIDE AND "FIBRO" PINS

Twisted Rawhide for quarter twist, shifting belts, etc., and "Fibro" Waterproof Pins for wet and steamy places are separately packed in standard bundles as listed.



Fig. S121

Each bundle contains 24 pins 12 inches long

NET PRICE PER BUNDLE

Size	Diameter	For	"Fibro"	Rawhide
No. 13, 6-64 inch, very thin belts, No. 2 and 3 Hooks.....			\$0.35	\$0.70
No. 12, 7-64 inch, No. 4 Hooks.....			.35	.70
No. 11, 8-64 inch, No. 5 Hooks.....			.35	.70
No. 10, 9-64 inch, No. 5 Hooks.....			.40	.80
No. 9, 10-64 inch, No. 6 Hooks.....			.45	.90
No. 8, 11-64 inch, No. 6 Hooks.....			.50	1.00
No. 7, 12-64 inch, Heavy Belts.....			.60	1.20
Assorted Sizes, Nos. 8-13.....			.40	.75

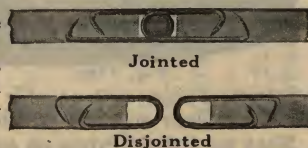
CLIPPER BELT HOOKS

For Use in Clipper Belt Lacers



Fig. S122

"Clipper" Hooks are made from a special steel wire of an analysis that combines great tensile strength with rigidity and wearing qualities.



Jointed

Disjointed

Clipper hooks are carded, long and short ends alternating. This card is easily removed after hooks have been locked into the tool. Cards contain 36 hooks each (enough for a 6 inch belt) and are packed 27 cards in a box with 14 rawhide pins, one for each laced joint. Each box will lace 84 inches (in width) both ends of belt.

SIZES AND NET PRICES

Per Box

No. 2, for thin belts over small sized pulleys.....	\$0.95
No. 3, for thin belts over medium sized pulleys.....	1.00
No. 4, for belts not over ¼ inch thick.....	1.00
No. 5, for belts not over ⅜ inch thick.....	1.15
No. 6, for belts not over ¾ inch thick.....	1.50

When used in damp and moist places, use Coppered Hooks at \$1.00 extra, per box net, for Nos. 2, 3, 4—and \$1.25 for Nos. 5 and 6.

BELT LACING AND LACE LEATHER**Assorted Rawhide
Cut Lace**

For the convenience of those who do not wish to buy 50 feet of each size. This special assortment, includes 25 feet, each $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$ and $\frac{1}{2}$ inch.

Price, 100 ft., asstd. Lace Leather (Rawhide).....\$2.46



Fig. S123

Rawhide Cut Lace

Is from the best selection of hides, hand cut and guaranteed perfect.

Size	Price
$\frac{1}{4}$ inch, per 100 ft.	\$1.67
$\frac{5}{16}$ inch, per 100 ft.	2.00
$\frac{3}{8}$ inch, per 100 ft.	2.50
$\frac{7}{16}$ inch, per 100 ft.	3.00
$\frac{1}{2}$ inch, per 100 ft.	3.67
$\frac{5}{8}$ inch, per 100 ft.	4.33
$\frac{3}{4}$ inch, per 100 ft.	5.00

50 ft. bdl. one-half price of 100 ft. bdl.

Indian Tanned Lace

Cut true of the same width throughout. Very durable in wet, cold or hot places.

Size	Price
$\frac{1}{4}$ inch, per 100 ft.	\$1.74
$\frac{5}{16}$ inch, per 100 ft.	2.09
$\frac{3}{8}$ inch, per 100 ft.	2.61
$\frac{7}{16}$ inch, per 100 ft.	3.14
$\frac{1}{2}$ inch, per 100 ft.	3.83
$\frac{5}{8}$ inch, per 100 ft.	4.53
$\frac{3}{4}$ inch, per 100 ft.	5.22

50 ft. bdl. one-half price of 100 ft. bdl.

LACE LEATHER SIDES

Fig. S124

Soft, Pliable, Best Quality Made From "First Selection"

Sides average 12 to 18 sq. ft. each. We do not sell less than a full side.

Net Prices per sq. ft.

Indian tanned.....	\$0.64
Rawhide.....	.61

STAG STEEL BELT HOOKS

Fig. S125—Ready to Apply. Finished Joint.

No special tool needed. A hammer will do the work.

The only zig-zag hook with solid back—drives better—holds longer—costs less. For all kinds of belts over all size pulleys.

SIZES AND NET PRICES

Size No.	Kind of Belt	Width of Belt	No. in Box	Price, Box, Net
00	Light Leather, Rubber or Cotton.....	$\frac{3}{8}$ -3 Ins.	200	\$0.48
0	Light Leather, Rubber or Cotton.....	$\frac{1}{2}$ -3 Ins.	200	.60
1	Single Leather, 3 ply Rubber or Cotton.....	1-5 Ins.	100	.36
2	Heavy Single or Light Double Leather, 4 ply Rubber or Cotton.....	1-8 Ins.	100	.60
3	Double Leather, 4 to 6 ply Rubber or Cotton.....	1-12 Ins.	100	1.02
4	Heavy Double Leather, 6 to 8 ply Rubber or Cotton.....	1 In. & up	100	1.50
5	Extra Heavy Double Leather, 6 to 8 ply Rubber or Cotton.....	$1\frac{1}{2}$ In. & up	100	2.40
6	Extra Heavy Double Leather, Rubber or Cotton.....	$1\frac{1}{2}$ In. & up	100	3.30
7	Extra Heavy Conveyor Belts.....	2 Ins. & up	100	5.40

ROCKWOOD PAPER PULLEYS

For Motors, Dynamos and other high speed service.



Fig. T100

- a solid block of tough, wear resisting fibre.
- a heavy cast iron hub.
- an exposed end grain that grips belt firmly — all ways.
- an automatically renewing surface of layer on layer of hydraulically compressed, cemented fibre.

Standard sizes with regular bores shipped from stock. Special pulleys supplied on short notice.

Sizes not listed—Prices on application.

Diameter	Total Face	Belt Width	Bores	Net Each
4	$3\frac{1}{2}$	3	$\frac{3}{4}$ to $1\frac{1}{2}$	\$2.20
4	$4\frac{1}{2}$	4	$\frac{7}{8}$ to $1\frac{5}{8}$	2.33
4	$5\frac{1}{2}$	5	1 to $1\frac{3}{4}$	2.51
$4\frac{1}{2}$	$3\frac{1}{2}$	3	$\frac{3}{4}$ to $1\frac{1}{2}$	2.32
$4\frac{1}{2}$	$4\frac{1}{2}$	4	$\frac{7}{8}$ to $1\frac{5}{8}$	2.42
$4\frac{1}{2}$	$5\frac{1}{2}$	5	1 to $1\frac{3}{4}$	2.56
5	$3\frac{1}{2}$	3	$\frac{3}{4}$ to $1\frac{5}{8}$	2.39
5	$4\frac{1}{2}$	4	$\frac{7}{8}$ to $1\frac{3}{4}$	2.52
5	$5\frac{1}{2}$	5	1 to $1\frac{7}{8}$	2.68
5	$6\frac{3}{4}$	6	$1\frac{1}{8}$ to 2	2.89
6	$4\frac{1}{2}$	4	$\frac{7}{8}$ to $1\frac{7}{8}$	3.26
6	$5\frac{1}{2}$	5	1 to 2	3.50
6	$6\frac{3}{4}$	6	$1\frac{1}{8}$ to $2\frac{1}{8}$	3.75

Diameter	Total Face	Belt Width	Bores	Net Each
6	$7\frac{3}{4}$	7	$1\frac{1}{4}$ to $2\frac{1}{4}$	\$4.06
7	$4\frac{1}{2}$	4	1 to $1\frac{7}{8}$	3.41
7	$5\frac{1}{2}$	5	$1\frac{1}{8}$ to $2\frac{1}{8}$	3.68
7	$6\frac{3}{4}$	6	$1\frac{1}{4}$ to $2\frac{1}{4}$	4.01
7	$7\frac{3}{4}$	7	$1\frac{3}{8}$ to $2\frac{3}{8}$	4.41
7	$8\frac{3}{4}$	8	$1\frac{3}{8}$ to $2\frac{1}{2}$	4.79
8	$4\frac{1}{2}$	4	1 to $1\frac{7}{8}$	3.74
8	$5\frac{1}{2}$	5	$1\frac{1}{8}$ to $2\frac{1}{8}$	4.00
8	$6\frac{3}{4}$	6	$1\frac{1}{4}$ to $2\frac{1}{4}$	4.28
8	$7\frac{3}{4}$	7	$1\frac{3}{8}$ to $2\frac{3}{8}$	4.60
8	$8\frac{3}{4}$	8	$1\frac{3}{8}$ to $2\frac{1}{2}$	5.02
9	$4\frac{1}{2}$	4	1 to 2	4.28
9	$5\frac{1}{2}$	5	$1\frac{1}{8}$ to $2\frac{1}{4}$	4.45
9	$6\frac{3}{4}$	6	$1\frac{1}{4}$ to $2\frac{3}{8}$	4.81
9	$7\frac{3}{4}$	7	$1\frac{3}{8}$ to $2\frac{1}{2}$	5.17
9	$8\frac{3}{4}$	8	$1\frac{3}{8}$ to $2\frac{5}{8}$	5.63
9	$9\frac{3}{4}$	9	$1\frac{1}{2}$ to $2\frac{3}{4}$	6.08
10	$4\frac{1}{2}$	4	$1\frac{1}{8}$ to $2\frac{1}{8}$	4.53
10	$5\frac{1}{2}$	5	$1\frac{1}{4}$ to $2\frac{3}{8}$	4.78
10	$6\frac{3}{4}$	6	$1\frac{1}{4}$ to $2\frac{1}{2}$	5.08
10	$7\frac{3}{4}$	7	$1\frac{3}{8}$ to $2\frac{5}{8}$	5.43
10	$8\frac{3}{4}$	8	$1\frac{3}{8}$ to $2\frac{3}{4}$	5.83
10	$9\frac{3}{4}$	9	$1\frac{1}{2}$ to $2\frac{7}{8}$	6.35
11	$5\frac{1}{2}$	5	$1\frac{1}{4}$ to $2\frac{5}{8}$	5.52
11	$6\frac{3}{4}$	6	$1\frac{1}{4}$ to $2\frac{1}{2}$	5.97
11	$7\frac{3}{4}$	7	$1\frac{3}{8}$ to $2\frac{5}{8}$	6.43
11	$8\frac{3}{4}$	8	$1\frac{3}{8}$ to $2\frac{3}{4}$	6.99
11	$9\frac{3}{4}$	9	$1\frac{1}{2}$ to $2\frac{7}{8}$	7.61
12	$5\frac{1}{2}$	5	$1\frac{1}{4}$ to $2\frac{1}{2}$	6.09
12	$6\frac{3}{4}$	6	$1\frac{1}{4}$ to $2\frac{5}{8}$	6.59
12	$7\frac{3}{4}$	7	$1\frac{3}{8}$ to $2\frac{3}{4}$	7.12
12	$8\frac{3}{4}$	8	$1\frac{3}{8}$ to $2\frac{7}{8}$	7.74
12	$9\frac{3}{4}$	9	$1\frac{1}{2}$ to 3	8.44
12	11	10	$1\frac{5}{8}$ to $3\frac{3}{8}$	9.19

Fig. T101
SOLID

CAST IRON PULLEYS

Our pulleys are machine moulded, bored and turned true in a lathe, balanced, painted and provided with Set Screws or Key-Seats as may be desired.

Pulleys up to and including 36" diameter are balanced to perform standard transmission work at a speed not in excess of 300 R.P.M. and pulleys 37" diameter and over at a rim speed not in excess of 3000 feet per minute.

All orders for pulleys will be shipped without boxing or crating unless otherwise specified. Boxing or crating charged for Extra.

Fig. T102
SPLIT

In ordering be sure to give full description of pulley including: Diameter, Face (Belt Width) and Bore in inches; whether to have Set Screws or Key-Seat or both; Solid or Split; Single or Double Belt; Crown or Straight Face.

When orders are received and no description given, Crown Face, Single Belt, Solid Pulleys will be furnished. See schedule of Extra Charges for Special Pulleys, Page 85.

SIZES, NET PRICES, ETC.

SOLID				SPLIT	SOLID				SPLIT	SOLID				SPLIT
Diameter, Inches	Face, Inches	Single Belt	Double Belt	Double Belt Only	Diameter, Inches	Face, Inches	Single Belt	Double Belt	Double Belt Only	Diameter, Inches	Face, Inches	Single Belt	Double Belt	Double Belt Only
Largest Bore at Reg. Price, 1 1/8"	3	\$1.76	\$2.00	\$3.20	12	3	\$2.88	\$3.16	\$4.60	18	3	\$4.16	\$4.56	\$6.36
	4	2.00	2.24	3.44		4	3.24	3.64	5.12		4	4.68	5.32	7.12
	5	2.28	2.52	3.92		5	3.64	4.12	5.88		5	5.28	6.08	8.32
	6	2.56	2.88	4.28		6	4.08	4.64	6.40		6	5.92	6.84	9.08
	7		3.28	4.88		7		5.16	7.24		7		7.64	10.32
	8		3.64	5.24		8		5.72	7.80		8		8.44	11.12
	9		4.04			9		6.28	8.72		9		9.28	12.44
	10		4.44			10		6.88	9.32		10		10.12	13.28
	12		5.24			12		8.12	10.92		12		11.88	15.52
						14		9.40	12.60		14		13.64	17.80
											16		15.56	20.24
Largest Bore at Reg. Price, 1 1/4"	3	1.92	2.16	3.36	13	3	2.92	3.36	4.80	19	3	4.36	4.84	6.64
	4	2.20	2.44	3.64		4	3.48	3.88	5.32		4	5.00	5.64	7.44
	5	2.48	2.80	4.20		5	3.92	4.40	6.16		5	5.64	6.48	8.76
	6	2.80	3.16	4.56		6	4.40	4.96	6.72		6	6.32	7.32	9.56
	7		3.52	5.12		7		5.52	7.60		7		8.20	10.88
	8		3.92	5.52		8		6.12	8.20		8		9.08	11.76
	9		4.28	6.12		9		6.72	9.16		9		9.92	13.08
	10		4.68	6.52		10		7.36	9.80		10		10.84	14.00
	12		5.48	7.60		12		8.68	11.48		12		12.72	16.36
Largest Bore at Reg. Price, 1 1/2"	3	2.12	2.32	3.60	14	3	3.24	3.60	5.16	20	3	4.60	5.12	7.08
	4	2.40	2.68	3.96		4	3.72	4.16	5.72		4	5.32	5.96	7.92
	5	2.72	3.04	4.56		5	4.08	4.76	6.68		5	6.04	6.84	9.28
	6	3.04	3.40	4.92		6	4.60	5.36	7.28		6	6.80	7.72	10.16
	7		3.80	5.56		7		6.00	8.28		7		8.64	11.56
	8		4.20	5.96		8		6.64	8.92		8		9.56	12.48
	9		4.64			9		7.28	9.96		9		10.52	13.96
	10		5.08			10		7.96	10.64		10		11.48	14.92
	12		6.08			12		9.36	12.44		12		13.48	17.44
						14		10.80	14.32		14		15.56	20.08
											16		17.72	22.80
											18		19.96	25.64
Largest Bore at Reg. Price, 1 3/4"	3	2.32	2.56	3.84	15	3	3.48	3.84	5.40	21	3	4.84	5.40	7.36
	4	2.60	2.92	4.20		4	3.88	4.44	6.00		4	5.60	6.28	8.24
	5	2.92	3.32	4.84		5	4.52	5.08	7.00		5	6.40	7.20	9.64
	6	3.28	3.72	5.24		6	4.88	5.72	7.64		6	7.20	8.12	10.56
	7		4.16	5.92		7		6.40	8.68		7		9.08	12.00
	8		4.60	6.36		8		7.08	9.36		8		10.04	12.96
	9		5.04			9		7.80	10.48		9		11.04	14.48
	10		5.52			10		8.52	11.20		10		12.04	15.48
	12		6.52			12		10.04	13.12		12		14.12	18.08
											14		16.28	20.80
Largest Bore at Reg. Price, 2"	3	2.48	2.76	4.12	16	3	3.72	4.08	5.76	22	3	5.08	5.68	7.80
	4	2.80	3.16	4.52		4	4.16	4.64	6.32		4	5.92	6.64	8.76
	5	3.16	3.56	5.20		5	4.64	5.28	7.36		5	6.76	7.60	10.24
	6	3.52	4.00	5.64		6	5.20	5.96	8.04		6	7.60	8.60	11.24
	7		4.44	6.36		7		6.80	9.28		7		9.60	12.76
	8		4.92	6.84		8		7.36	9.84		8		10.64	13.80
	9		5.44	7.68		9		8.08	11.00		9		11.68	15.40
	10		6.00	8.24		10		8.84	11.76		10		12.76	16.48
	12		7.16	9.72		12		10.40	13.76		12		14.96	19.24
						14		12.00	15.84		14		17.24	22.12
						16		13.76	18.12		16		19.84	25.08
											18		22.04	28.16
Largest Bore at Reg. Price, 2 1/4"	3	2.64	2.96	4.32	17	3	3.92	4.32	6.00	23	3	5.36	6.00	8.12
	4	3.00	3.40	4.76		4	4.40	5.00	6.68		4	6.24	7.00	9.12
	5	3.36	3.84	5.48		5	5.00	5.68	7.76		5	7.12	8.04	10.68
	6	3.76	4.32	6.12		6	5.60	6.40	8.48		6	8.00	9.08	11.72
	7		4.80	6.72		7		7.12	9.60		7		10.16	13.32
	8		5.32	7.24		8		7.88	10.36		8		11.24	14.40
	9		5.84	8.08		9		8.64	11.56		9		12.36	16.08
	10		6.40	8.64		10		9.44	12.40		10		13.48	17.20
	12		7.64	10.20		12		11.08	14.44		12		15.80	20.08
											14		18.20	23.08

CAST IRON PULLEYS—Continued

SIZES, NET PRICES, ETC.

SOLID				SPLIT	SOLID				SPLIT	SOLID				SPLIT
Diameter, Inches	Face, Inches	Single Belt	Double Belt	Double Belt Only	Diameter, Inches	Face, Inches	Single Belt	Double Belt	Double Belt Only	Diameter, Inches	Face, Inches	Single Belt	Double Belt	Double Belt Only
24 Largest Bore at Reg. Price, 3 1/8"	3	\$ 5.64	\$ 6.32	\$ 8.56	34 Largest Bore at Reg. Price, 3 1/8"	3		\$10.48	\$13.76	44 Largest Bore at Reg. Price, 4 1/8"	4		\$18.12	\$22.80
	4	6.56	7.40	9.64		4		12.16	15.44		5		20.52	26.24
	5	7.48	8.48	11.32		5	\$10.36	13.84	17.96		6		22.92	28.64
	6	8.40	9.60	12.44		6	11.76	15.56	19.68		7		25.32	32.00
	7		10.72	14.12		7	13.20	17.28	22.16		8		27.72	34.40
	8		11.88	15.28		8		19.04	23.92		9		30.16	37.84
	9		13.04	17.04		9		20.84	26.52		10		32.60	39.48
	10		14.24	18.24		10		22.64	28.32		12		37.48	46.16
	12		16.68	21.28		12		26.32	32.80		14		42.44	51.92
25 Largest Bore at Reg. Price, 3 1/8"	14		19.20	24.44	14		30.08	37.40	16		47.40	58.16		
	16		21.80	27.68	16		33.92	42.08	18		52.44	64.28		
	18		24.48	31.04	18		37.84	47.68	20		57.44	70.36		
	3		6.68	8.92	20		41.84	51.76	22		62.60	76.64		
	4	6.88	7.80	10.04	22		45.92	56.76	24		67.80	83.04		
	5	7.84	8.96	11.80	24		57.68	67.04						
	6	8.80	10.12	12.96										
	7		11.32	14.72										
	8		12.52	15.92										
26 Largest Bore at Reg. Price, 3 1/8"	9		13.76	17.76	36 Largest Bore at Reg. Price, 3 1/8"	3		11.44	14.96	46 Largest Bore at Reg. Price, 4 1/8"	4		19.48	24.48
	10		15.00	19.00		4		13.36	16.04		5		22.00	28.08
	12		17.56	22.16		5	11.36	13.24	16.04		6		24.52	30.60
	14		20.20	25.44		6	12.84	15.08	19.52		7		27.08	34.16
	3		7.04	9.44		7		16.92	21.32		8		29.64	36.72
	4	7.20	8.24	10.64		8		18.80	24.00		9		32.20	40.32
	5	8.20	9.44	12.52		9		20.68	25.88		10		34.76	42.88
	6	9.20	10.68	13.76		10		22.60	28.54		12		39.96	49.12
	7		11.92	15.60		12		24.56	30.60		14		45.20	55.20
27 Largest Bore at Reg. Price, 3 1/8"	8		13.20	16.88	14		28.52	35.40	16		50.48	61.80		
	9		14.48	18.80	16		32.56	40.32	18		55.84	70.20		
	10		15.76	20.12	18		36.68	45.32	20		61.24	74.80		
	12		18.48	23.44	20		40.88	50.44	22		66.72	81.44		
	14		21.24	26.88	22		45.16	55.64	24		72.24	88.12		
	16		24.08	30.40	24		49.52	60.96						
	18		27.00	34.04			53.92	66.32						
	3		7.44	9.84	38 Largest Bore at Reg. Price, 3 1/8"	4		14.40	18.20	48 Largest Bore at Reg. Price, 4 1/8"	4		20.88	26.20
	4	7.60	8.68	11.08		5		16.40	21.16		5		23.52	29.96
5	8.64	9.96	13.04	6			18.40	23.12	6			26.20	32.64	
6	9.68	11.24	14.32	7			20.44	26.00	7			28.88	36.36	
7		12.56	16.24	8			22.48	28.04	8			31.56	39.04	
8		13.88	17.56	9			24.56	31.00	9			34.28	42.84	
9		15.24	19.56	10			26.64	33.08	10			37.00	46.36	
10		16.60	20.92	12			30.95	38.20	12			42.48	52.12	
12		19.40	24.36	14			35.20	43.44	14			48.00	58.52	
28 Largest Bore at Reg. Price, 3 1/8"	14		22.28	27.84	16		39.60	48.76	16		53.60	65.48		
	3		7.84	10.44	18		44.08	54.20	18		59.28	72.32		
	4	7.96	9.16	11.72	20		48.64	59.72	20		65.04	79.24		
	5	9.08	10.48	13.80	22		53.24	65.32	22		70.88	86.28		
	6	10.20	11.84	15.16	24		57.88	70.96	24		76.44	93.36		
	7		13.20	17.16										
	8		14.60	18.56										
	9		16.00	20.64										
	10		17.44	22.08										
29 Largest Bore at Reg. Price, 3 1/8"	12		20.36	25.68	40 Largest Bore at Reg. Price, 3 1/8"	4		15.60	19.68	50 Largest Bore at Reg. Price, 4 1/8"	4		23.72	29.75
	14		23.36	29.40		5		17.72	22.76		5		26.69	33.96
	16		26.44	33.20		6		19.84	24.88		6		29.67	36.93
	18		29.52	37.04		7		21.96	27.88		7		32.64	41.06
	20		32.76	41.04		8		24.08	30.00		8		35.66	44.07
	22		36.08	45.16		9		26.24	33.08		9		38.68	48.28
	3		8.68	11.48		10		28.40	35.64		10		41.74	51.34
	4	8.72	10.12	12.92		12		32.76	40.52		12		47.90	58.69
	5	9.96	11.56	15.12		14		37.16	45.88		14		54.15	65.92
30 Largest Bore at Reg. Price, 3 1/8"	6	11.20	13.04	16.60	16		41.64	51.32	16		60.48	73.74		
	7		14.52	18.76	18		46.20	56.88	18		66.90	81.43		
	8		16.04	20.28	20		50.88	62.48	20		73.40	89.21		
	9		17.56	22.52	22		55.48	68.20	22		80.03	98.86		
	10		19.12	24.08	24		60.28	74.04	24		86.74	105.27		
	12		22.28	27.96										
	14		25.52	31.96										
	16		28.80	36.00										
	18		32.20	40.20										
31 Largest Bore at Reg. Price, 3 1/8"	20		35.68	44.48	42 Largest Bore at Reg. Price, 3 1/8"	4		16.84	21.20	52 Largest Bore at Reg. Price, 4 1/8"	6		31.66	39.36
	22		39.24	48.88		5		19.08	24.44		7		34.85	43.73
	3		9.56	12.60		6		21.32	26.68		8		38.04	46.92
	4	9.52	11.12	14.16		7		23.56	29.84		9		41.27	51.38
	5	10.84	12.68	16.52		8		25.80	32.08		10		44.50	54.61
	6	12.16	14.28	18.12		9		28.08	35.32		12		51.04	62.39
	7		15.88	20.44		10		30.36	37.60		14		57.67	70.04
	8		17.52	22.08		12		34.96	43.16		16		64.39	78.29
	9		19.16	24.48		14		44.32	54.52		18		71.19	86.40
32 Largest Bore at Reg. Price, 3 1/8"	10		20.84	26.16	16		49.08	60.32	20		78.07	94.61		
	12		24.24	30.32	18		53.88	65.16	22		85.00	102.89		
	14		27.76	34.64	20		58.68	72.04	24		91.97	111.22		
	16		31.36	39.04	22		63.52	77.96						
	18		35.04	43.56										
	20		38.80	48.16										
	22		42.64	52.88										
	3				44 Largest Bore at Reg. Price, 3 1/8"	4				54 Largest Bore at Reg. Price, 4 1/8"	6		33.66	41.78
	4					5					7		37.02	46.37
5				6					8			40.42	49.77	
6				7					9			43.82	54.44	
7				8					10			47.26	57.89	
8				9					12			54.19	66.09	
9				10					14			61.20	74.16	
10				12					16			68.30	82.83	
12				14					18			75.48	91.38	
33 Largest Bore at Reg. Price, 3 1/8"	14				16				20		82.75	100.00		
	16				18				22		90.10	108.76		
	18				20				24		97.50	117.56		
	20													
	22													

CAST IRON PULLEYS—Continued

EXTRAS

Balanced for high speed—20% additional to the price of standard pulleys as listed.

Dynamo or motor pulleys—25% additional.

Pulleys having diameters specified in fractions of an inch, viz.: $\frac{1}{2}$, $\frac{1}{4}$, etc., 50% additional to the next largest double belt list.

Pulleys above 28-inch diameter are listed only in even inches, for odd diameters like 39-inch, 55-inch, 69-inch, etc., take price of the next larger size.

Exact diameters, either at crown or at edge of rim—50% additional.

Offset hubs, offset arms, hubs longer than standard—one-half tight and loose, price—additional.

Pulleys ordered to have faces $\frac{1}{2}$ inch or more wider than size listed will take price of next wider listed size.

TIGHT AND LOOSE PULLEYS

Fig. T103

Additional price to be added to the net price per pair for tight and loose pulleys.

Diameter, Inches	Face, Inches					
	3 & 4	5 & 6	7 & 8	9 & 10	11 & 12	13 & 14
6 to 9	\$1.04	\$1.60	\$2.40	\$3.60	\$4.80	\$6.00
10 to 15	1.20	1.84	2.72	4.00	5.60	7.60
16 to 20	1.68	2.32	3.20	4.40	6.00	8.00
21 to 30	2.64	3.28	4.16	5.44	7.20	10.00
31 to 42	3.60	4.40	5.52	7.20	9.68	13.20
43 to 60	4.80	5.92	7.44	9.60	12.64	16.80

SINGLE OR DOUBLE FLANGE PULLEYS

Prices on application.

EXTRA FOR LARGE BORES

DIAMETER	
6 to 15 inches...	Add 10% for each additional $\frac{1}{4}$ inch or fractional part thereof.
16 to 30 inches...	Add 10% for each additional $\frac{1}{2}$ inch or fractional part thereof.
32 to 60 inches...	Add 5% for each additional $\frac{1}{2}$ inch or fractional part thereof.

Extra When Both Keyseat and Set Screws are Required

Up to 15-inch diameter, incl. add.....	Net \$0.40
16 to 24-inch diameter, incl. add.....	Net .48
25 to 35-inch diameter, incl. add.....	Net .56
36 to 48-inch diameter, incl. add.....	Net .80
50 to 60-inch diameter, incl. add.....	Net .92
62 to 72-inch diameter, incl. add.....	Net 1.04

Fig. T104

Special Pulleys—Less than 6-Inch Diameter

Diam., Inches	Face, Inches	Net Price, Each	Largest Bore	Diam., Inches	Face, Inches	Net Price, Each	Largest Bore
2	2	\$1.08	1	4	4	\$2.21	1 $\frac{1}{2}$
	3	1.36	1		5	2.73	1 $\frac{3}{4}$
	4	1.79	1		6	3.34	2
3	2	1.36	1	5	2	1.93	1
	3	1.65	1 $\frac{1}{4}$		3	2.21	1 $\frac{1}{4}$
	4	1.97	1 $\frac{1}{2}$		4	2.49	1 $\frac{1}{2}$
	5	2.54	1 $\frac{3}{4}$		5	2.91	1 $\frac{3}{4}$
4	6	3.24	1 $\frac{1}{2}$		6	3.43	2
	2	1.65	1		7	4.23	2 $\frac{1}{4}$
	3	1.93	1 $\frac{1}{4}$		8	5.17	2 $\frac{1}{2}$

For half sizes take next largest list.



Fig. T105

MASTER CONTRACTING BAND CLUTCH PULLEY

This clutch is extremely simple, easy to adjust, durable, efficient, strong and compact, requiring very little space on the shaft, and may be erected complete on shaft very quickly. It costs little to buy, little to erect, and little to maintain. Recommended for light power transmission, on forward or reverse belts. All Pulleys Double Belt.

For Split Pulleys add 50 per cent to prices below.

SIZES, DIMENSIONS AND NET PRICES

No. 1 Clutch 2 $\frac{1}{2}$ H.P. at 100 R.P.M. Largest Bore 1 $\frac{1}{2}$ in.

Diam. Inches	Face Inches	H.P. Pulley	Space on Shaft Inches	Price Net, Each	Diam. Inches	Face Inches	H.P. Pulley	Space on Shaft Inches	Price Net, Each	Diam. Inches	Face Inches	H.P. Pulley	Space on Shaft Inches	Price Net, Each
6	3	1.3	9 $\frac{1}{4}$	\$13.00	7	5	2.5	9 $\frac{1}{4}$	\$13.98	9	4	2.5	9 $\frac{1}{4}$	\$14.11
	4	1.7	9 $\frac{1}{4}$	13.29		6	2.8	10 $\frac{1}{4}$	14.40		10	3	2.2	9 $\frac{1}{4}$	14.07
	5	2.2	9 $\frac{1}{4}$	13.62		8	3	1.7	9 $\frac{1}{4}$	13.39	4	2.8	9 $\frac{1}{4}$	14.56
7	6	2.5	10 $\frac{1}{4}$	14.07		4	2.2	9 $\frac{1}{4}$	13.81	11	3	2.4	9 $\frac{1}{4}$	14.30
	3	1.6	9 $\frac{1}{4}$	13.20		5	2.8	9 $\frac{1}{4}$	14.27		12	3	2.5	9 $\frac{1}{4}$	14.56
	4	2	9 $\frac{1}{4}$	13.52		9	3	1.9	9 $\frac{1}{4}$	13.68	3	2.8	9 $\frac{1}{4}$	14.79

No. 2 Clutch 4 $\frac{1}{2}$ H.P. at 100 R.P.M. Largest Bore 1 $\frac{1}{2}$ in.

Diam. Inches	Face Inches	H.P. Pulley	Space on Shaft Inches	Price Net, Each	Diam. Inches	Face Inches	H.P. Pulley	Space on Shaft Inches	Price Net, Each	Diam. Inches	Face Inches	H.P. Pulley	Space on Shaft Inches	Price Net, Each
10	3	2.2	11 $\frac{1}{4}$	\$15.73	12	3	2.5	11 $\frac{1}{4}$	\$16.25	15	3	3	11 $\frac{1}{4}$	\$17.06
	4	2.8	11 $\frac{1}{4}$	16.25		4	3.3	11 $\frac{1}{4}$	16.84		4	4.2	11 $\frac{1}{4}$	17.81
	5	3.5	11 $\frac{1}{4}$	16.71		5	4.1	11 $\frac{1}{4}$	17.42		3	3.3	11 $\frac{1}{4}$	17.65
11	6	4.1	12 $\frac{1}{4}$	17.23	13	3	2.8	11 $\frac{1}{4}$	16.48	18	4	4.4	11 $\frac{1}{4}$	18.33
	3	2.4	11 $\frac{1}{4}$	15.99		4	3.6	11 $\frac{1}{4}$	17.10		3	3.7	11 $\frac{1}{4}$	18.23
	4	3.1	11 $\frac{1}{4}$	16.51		5	4.4	11 $\frac{1}{4}$	17.75		4	4.8	11 $\frac{1}{4}$	19.18
	5	3.8	11 $\frac{1}{4}$	17.06	14	3	3	11 $\frac{1}{4}$	16.77	20	3	4.2	11 $\frac{1}{4}$	18.92
	6	4.5	12 $\frac{1}{4}$	17.65		4	3.9	11 $\frac{1}{4}$	17.45		3	4.5	11 $\frac{1}{4}$	20.18

No. 2 $\frac{1}{2}$ Clutch 6 H.P. at 100 R.P.M. Largest Bore 2 $\frac{3}{8}$ in.

12	4	3.3	11 $\frac{1}{4}$	\$18.46	14	4	3.9	11 $\frac{1}{4}$	\$19.08	16	5	5.3	11 $\frac{1}{4}$	\$20.74
	5	4.1	11 $\frac{1}{4}$	19.05		5	4.7	11 $\frac{1}{4}$	19.83		6	6.4	12 $\frac{1}{4}$	21.58
	6	4.8	12 $\frac{1}{4}$	19.66		6	5.6	12 $\frac{1}{4}$	20.54		4	4.9	11 $\frac{1}{4}$	20.80
13	8	6.5	14 $\frac{1}{4}$	21.52	15	8	7.4	14 $\frac{1}{4}$	22.65	20	5	6	11 $\frac{1}{4}$	21.71
	4	3.6	11 $\frac{1}{4}$	18.75		4	4.2	11 $\frac{1}{4}$	19.44		6	7.1	12 $\frac{1}{4}$	22.65
	5	4.4	11 $\frac{1}{4}$	19.37		5	5	11 $\frac{1}{4}$	20.22		20	4	5.6	11 $\frac{1}{4}$	21.58
	6	5.3	12 $\frac{1}{4}$	20.05	16	6	6	12 $\frac{1}{4}$	21.00	22	4	5.9	11 $\frac{1}{4}$	22.98
	8	6.9	14 $\frac{1}{4}$	22.00		4	4.4	11 $\frac{1}{4}$	19.96		4	6.4	11 $\frac{1}{4}$	23.92

No. 3 Clutch 7 $\frac{1}{2}$ H.P. at 100 R.P.M. Largest Bore 2 $\frac{7}{8}$ in.

Diam. Inches	Face Inches	H.P. Pulley	Space on Shaft Inches	Price Net, Each	Diam. Inches	Face Inches	H.P. Pulley	Space on Shaft Inches	Price Net, Each	Diam. Inches	Face Inches	H.P. Pulley	Space on Shaft Inches	Price Net, Each
14	4	3.9	11 $\frac{1}{4}$	\$22.36	16	6	6.4	12 $\frac{1}{4}$	\$24.83	20	6	7.9	12 $\frac{1}{4}$	\$26.98
	5	4.7	11 $\frac{1}{4}$	23.08		8	8.4	14 $\frac{1}{4}$	27.11		4	5.9	11 $\frac{1}{4}$	26.26
	6	5.6	12 $\frac{1}{4}$	23.82		4	4.9	11 $\frac{1}{4}$	24.05		4	6.4	11 $\frac{1}{4}$	27.17
16	8	7.4	14 $\frac{1}{4}$	25.97	20	6	7.1	12 $\frac{1}{4}$	25.97	26	4	6.9	11 $\frac{1}{4}$	28.21
	4	4.4	11 $\frac{1}{4}$	23.24		4	5.6	11 $\frac{1}{4}$	24.83		4	7.4	11 $\frac{1}{4}$	29.32

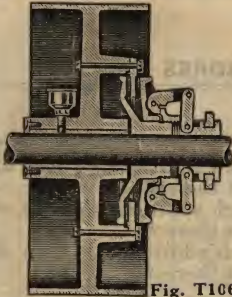


Fig. T106

"LEMLEY" FRICTION CLUTCH PULLEYS

Notice the simple design and the powerful leverage in our toggle arrangement. This latter feature is a very important factor, because it determines the degree of pressure that can be applied to the friction plates. The toggles also give the clutch a positive release. While the clutch is being disengaged the toggles come in contact with the outside diameter of the adjusting ring, and the friction plate is then forced away from the friction surface.

The adjustment is made by means of a threaded ring screwed on to the clutch sleeve. This ring is split on one side and is clamped in place with a bolt. When adjusting, first loosen the clamping bolt then turn the ring to the right to tighten and to the left to loosen. This one ring adjusts all toggles at the same time, assuring a like pressure on each toggle. Retighten the clamping bolt before placing the strain on the adjusting ring.

SIZES AND NET PRICES

Diam., Ins.	Face, Ins.	H.P. 100 R.P.M.	Largest Bore, Ins.	Total Shaft Space, Ins.	Net Price, Each	Diam., Ins.	Face, Ins.	H.P. 100 R.P.M.	Largest Bore, Ins.	Total Shaft Space, Inc.	Net Price Each	Diam., Ins.	Face, Ins.	H.P. 100 R.P.M.	Largest Bore, Ins.	Total Shaft Space, Ins.	Net Price, Each
12	4	2.5	1 $\frac{15}{16}$	14	\$26.25	24	10	13.0	3 $\frac{7}{16}$	22	\$54.94	34	6	11.3	3 $\frac{7}{16}$	18	\$56.25
	5	3.5	2 $\frac{1}{16}$	15	30.38		12	16.0	3 $\frac{7}{16}$	25	57.56		8	15.1	3 $\frac{7}{16}$	21	67.50
	6	4.0	2 $\frac{1}{16}$	16	30.75		14	18.0	3 $\frac{7}{16}$	27	67.50		10	18.8	3 $\frac{7}{16}$	23	71.25
	8	5.0	2 $\frac{1}{16}$	18	31.88	26	4	5.6	2 $\frac{1}{16}$	14	34.50		12	22.6	3 $\frac{7}{16}$	26	84.75
	10	6.0	2 $\frac{1}{16}$	21	33.38		5	7.2	2 $\frac{1}{16}$	16	42.38		14	26.0	4 $\frac{1}{16}$	29	104.44
14	4	3.0	2 $\frac{1}{16}$	14	30.38		6	8.5	2 $\frac{1}{16}$	17	43.50		16	29.5	4 $\frac{1}{16}$	32	108.38
	5	3.5	2 $\frac{1}{16}$	15	30.75		8	11.5	3 $\frac{7}{16}$	20	54.00	36	6	12.0	3 $\frac{7}{16}$	18	57.75
	6	4.5	2 $\frac{1}{16}$	16	31.50		10	13.5	3 $\frac{7}{16}$	22	56.63		8	16.0	3 $\frac{7}{16}$	21	69.19
	8	5.5	2 $\frac{1}{16}$	19	39.38		12	16.0	3 $\frac{7}{16}$	25	66.94		10	20.0	3 $\frac{7}{16}$	24	83.44
	10	7.0	2 $\frac{1}{16}$	22	40.50		14	19.0	3 $\frac{7}{16}$	27	80.25		12	24.0	3 $\frac{7}{16}$	26	87.75
16	4	3.5	2 $\frac{1}{16}$	14	30.75	28	4	6.2	2 $\frac{1}{16}$	15	41.81		14	27.5	4 $\frac{1}{16}$	29	107.06
	5	4.5	2 $\frac{1}{16}$	15	31.50		5	7.2	2 $\frac{1}{16}$	16	43.13		16	31.5	4 $\frac{1}{16}$	32	111.38
	6	5.3	2 $\frac{1}{16}$	16	32.25		6	9.3	2 $\frac{1}{16}$	17	44.63	40	6	14.3	3 $\frac{7}{16}$	18	60.75
	8	7.0	2 $\frac{1}{16}$	19	40.13		8	12.4	3 $\frac{7}{16}$	20	55.31		8	18.7	3 $\frac{7}{16}$	21	72.75
	10	8.5	2 $\frac{1}{16}$	22	41.63		10	15.5	3 $\frac{7}{16}$	23	66.00		10	22.4	3 $\frac{7}{16}$	24	87.00
18	4	4.0	2 $\frac{1}{16}$	14	31.50		12	18.0	3 $\frac{7}{16}$	26	68.81		12	27.9	4 $\frac{1}{16}$	28	107.25
	5	5.0	2 $\frac{1}{16}$	15	32.25		14	21.5	3 $\frac{7}{16}$	29	83.25		14	32.0	4 $\frac{1}{16}$	30	111.75
	6	6.0	2 $\frac{1}{16}$	16	33.00	30	6	10.0	3 $\frac{7}{16}$	18	53.81		16	37.0	4 $\frac{1}{16}$	33	126.94
	8	8.0	2 $\frac{1}{16}$	19	41.06		8	13.3	3 $\frac{7}{16}$	20	56.81	42	8	18.0	3 $\frac{7}{16}$	21	73.88
	10	9.5	2 $\frac{1}{16}$	22	42.75		10	15.6	3 $\frac{7}{16}$	23	67.50		10	23.8	3 $\frac{7}{16}$	24	89.81
20	4	4.5	2 $\frac{1}{16}$	14	32.06		12	20.0	3 $\frac{7}{16}$	26	81.38		12	28.0	4 $\frac{1}{16}$	28	109.50
	5	5.5	2 $\frac{1}{16}$	15	33.00		14	23.0	3 $\frac{7}{16}$	29	84.75	46	6	15.5	3 $\frac{7}{16}$	19	73.13
	6	6.5	2 $\frac{1}{16}$	17	40.31		16	26.5	4 $\frac{1}{16}$	32	103.13		8	20.5	3 $\frac{7}{16}$	22	89.06
	8	8.8	2 $\frac{1}{16}$	19	42.19	32	6	10.5	3 $\frac{7}{16}$	18	54.75		10	25.5	4 $\frac{1}{16}$	26	109.31
	10	11.0	2 $\frac{1}{16}$	22	52.31		8	14.2	3 $\frac{7}{16}$	20	62.25		12	31.0	4 $\frac{1}{16}$	28	114.75
	12	13.0	2 $\frac{1}{16}$	25	54.38		10	17.7	3 $\frac{7}{16}$	23	69.38	48	6	16.0	3 $\frac{7}{16}$	19	75.00
24	4	5.5	2 $\frac{1}{16}$	14	33.75		12	21.3	3 $\frac{7}{16}$	26	82.69		8	21.5	3 $\frac{7}{16}$	22	90.94
	5	6.5	2 $\frac{1}{16}$	16	34.88		14	24.8	3 $\frac{7}{16}$	29	87.00		10	26.5	4 $\frac{1}{16}$	26	114.38
	6	8.0	2 $\frac{1}{16}$	17	41.25		16	28.0	4 $\frac{1}{16}$	32	105.75		12	32.0	4 $\frac{1}{16}$	28	117.38
	8	10.5	2 $\frac{1}{16}$	20	52.50		18	31.5	4 $\frac{1}{16}$	35	109.50		14	37.5	4 $\frac{1}{16}$	30	133.14

The prices given are for the pulleys, furnished with plain bores. Other sizes furnished. Prices on application. For Split Clutches, add 25 per cent to above prices. For High Speed Shafts, Pulleys should be bronze bushed.

NET PRICES FOR BRONZE BUSHING PULLEYS TO BE ADDED TO ABOVE PRICES

Size of Shaft	Price per Inch	Size of Shaft	Price per Inch	Size of Shaft	Price per Inch	Size of Shaft	Price per Inch	Size of Shaft	Price per Inch	Size of Shaft	Price per Inch
1 $\frac{1}{16}$	\$1.05	1 $\frac{5}{16}$	\$1.25	2 $\frac{1}{16}$	\$1.75	2 $\frac{5}{16}$	\$1.88	3 $\frac{1}{16}$	\$2.25	3 $\frac{5}{16}$	\$3.10
1 $\frac{1}{8}$	1.08	2 $\frac{1}{8}$	1.63	2 $\frac{1}{2}$	1.88	3 $\frac{1}{8}$	2.25	3 $\frac{1}{2}$	3.10	4 $\frac{1}{8}$	4.00

Multiply the Net Price per inch of bushing by the width of pulley face and add amount to price of Clutch Pulley.

LEMLEY FRICTION CLUTCH COUPLING

DIMENSIONS, NET PRICE, ETC.

The Cut-Off Coupling feature of the Lemley Clutch is obtained by the substitution of a hub in place of the extended sleeve. This hub is keyed to the shaft and is provided with a brass bushing for



Fig. T107

receiving the extended part of the shaft, to which the driving plate is keyed, thus making a true male and female bearing for shafts, and assuring absolute alignment. The driving and driven shafts are both keyed to the clutch. The ends of the two shafts should be about one-eighth of an inch apart. To secure the best results the two shafts should be perfectly in line. (State size wanted and give full information when ordering.)

Size	Largest Bore Inches	Total Space on Shaft Inches	H.P. at 100 R.P.M.	Net Price
6	2	12 $\frac{1}{2}$	3	\$ 26.25
8	2 $\frac{1}{16}$	14	6	33.00
10	2 $\frac{1}{8}$	15 $\frac{3}{8}$	10	41.25
12	3 $\frac{1}{2}$	16 $\frac{3}{4}$	15	49.50
14	3 $\frac{1}{2}$	18 $\frac{1}{2}$	20	61.50
16	4	18 $\frac{3}{8}$	25	74.25
18	4 $\frac{3}{4}$	20	35	90.00
20	4 $\frac{3}{4}$	21	45	100.50
24	5 $\frac{1}{2}$	24 $\frac{1}{4}$	65	148.50
30	6	27 $\frac{1}{4}$	100	217.50
36	7 $\frac{1}{2}$	29 $\frac{1}{8}$	140	322.50

For price on Split Couplings add 25% to the above prices.

STEEL SPLIT PULLEYS

Every Pulley Guaranteed for Double Belt Duty

These pulleys are strong because they are reinforced at every vital point, insuring absolute rigidity and durability. They run in practically perfect true balance and will not break or fly to pieces when operated at high speeds. They are stronger than cast iron pulleys of three times their weight, far more sightly and durable than wood pulleys, and will develop more power and stand harder usage than either one. They have a perfect oval (not angle) crown, insuring maximum belt adhesion. They are the easiest pulleys to install and the safest and most economical to operate.

NET PRICE LIST

Including One Standard Bushing For Each Pulley—In Ordering State Diameter, Width of Face, Size of Shaft and if Crown or Straight Face Pulley is Desired

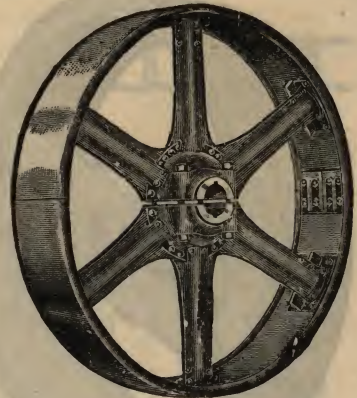


Fig. T108

General design of
Sizes over 20" diameter

Diam. Inches	WIDTH OF FACE—INCHES												
	3	4	5	6	8	10	12	14	16	18	20	22	24
6.....	\$2.64	\$2.76	\$3.00	\$3.24	\$3.68	\$4.16	\$4.72						
7.....	2.71	2.88	3.12	3.36	3.84	4.32	4.88						
8.....	2.76	3.00	3.24	3.48	3.96	4.48	5.00						
9.....	2.88	3.12	3.36	3.60	4.08	4.60	5.08						
10.....	3.00	3.24	3.48	3.72	4.20	4.72	5.16						
11.....	3.12	3.36	3.60	3.84	4.32	4.80	5.52						
12.....	3.36	3.70	3.84	4.27	4.63	5.16	6.12	\$7.20	\$8.20				
13.....	3.48	3.84	4.16	4.50	5.15	5.76	6.72	7.60	8.60				
14.....	3.60	4.16	4.52	4.92	5.64	6.42	7.20	8.00	9.00				
15.....	3.72	4.36	4.64	5.24	6.12	7.04	7.80	8.60	9.60				
16.....	3.96	4.60	4.88	5.52	6.60	7.56	8.40	9.20	10.12				
17.....	4.20	4.80	5.20	5.82	7.02	8.04	9.00	9.92	10.92				
18.....	4.44	5.10	5.60	6.12	7.44	8.52	9.60	10.60	11.60				
19.....	4.64	5.40	6.00	6.60	8.10	9.00	10.32	11.36	12.48				
20.....	4.80	6.00	6.48	7.20	8.58	9.60	11.40	12.24	13.52				
22.....	5.20	6.84	7.60	8.23	9.60	11.28	13.44	15.60	17.04				
24.....	6.00	7.12	8.00	8.76	10.56	12.55	15.24	18.12	21.00	\$23.94	\$27.60		
26.....		7.64	8.40	9.56	11.52	13.68	17.04	21.00	24.96	28.92	33.12		
28.....		8.64	9.36	10.32	12.36	14.52	18.32	22.80	27.60	32.28	37.08		
30.....		9.60	10.32	11.28	13.80	15.92	19.80	25.20	30.48	36.00	39.60	\$44.40	\$49.20
32.....		10.56	11.28	12.36	15.48	18.00	21.48	27.32	33.32	38.70	43.50	48.30	53.10
34.....		11.52	12.60	13.80	17.40	20.40	24.00	29.40	36.00	41.40	45.96	51.00	55.80
36.....		12.72	14.28	15.60	19.20	22.92	27.00	31.80	38.88	44.40	49.20	54.00	58.80
38.....		15.60	16.52	17.40	21.12	24.84	29.72	34.20	41.40	47.10	51.90	56.70	61.50
40.....		16.80	18.20	19.20	22.80	27.00	32.12	37.20	44.12	49.80	55.80	61.80	67.80
42.....		18.60	19.88	21.00	25.80	30.00	34.80	40.20	46.20	52.50	58.50	64.50	70.50
44.....				23.40	28.50	33.00	37.80	43.20	48.90	55.20	62.40	69.60	76.80
46.....				26.40	31.20	36.00	40.20	46.20	51.60	57.60	64.80	72.00	79.20
48.....				29.40	33.60	39.00	43.20	49.20	54.00	60.00	69.60	79.20	88.80
50.....				32.70	37.80	42.60	46.80	52.80	60.00	67.20	76.80	86.40	96.00
52.....				37.20	40.80	45.60	50.40	55.20	63.00	72.00	81.60	91.20	100.80
54.....				40.20	45.00	49.20	54.00	59.40	66.60	77.40	87.00	96.60	106.20
56.....				43.20	48.60	53.40	58.20	64.20	72.00	83.40	95.40	107.40	119.40
58.....				48.00	52.20	57.00	62.70	69.30	77.10	88.50	100.50	112.50	124.50
60.....				51.00	56.40	61.80	67.20	74.40	82.20	93.60	105.60	117.60	129.60
62.....					58.28	67.44	76.76	86.04	95.96	105.84	115.88	148.64	161.32
64.....					61.20	70.56	80.08	89.56	99.68	109.76	120.00	157.68	168.16
66.....					64.20	73.76	83.48	93.16	103.48	113.76	124.24	164.44	175.16
68.....						77.08	87.00	96.88	107.40	117.92	128.64	171.44	182.36
70.....						80.56	90.84	101.08	111.96	122.88	134.08	178.96	190.28
72.....						84.04	94.52	105.04	116.32	127.72	139.44	186.32	197.88

Add 25 per cent to the Net Price of the next larger size pulley for the Net Price of odd sizes over 20-inch in diameter.

Pulley Diameter Inches	Regular Bore Inches	Special Bore Inches	Additional Price for Special or Large Bores	BUSHINGS			Other Sizes up to 144 inches in diameter and 36-inch face furnished. Prices on applica- tion.
				Outside Diameter Inches	Length Inches	Symbol	
6 to 7, inclusive	2 7/8			2 7/8	3	F	All pulleys are fitted with interchangeable Steel Bush- ings. Sleeves for tight and loose pulleys can be furnished at an additional price.
8 to 20, inclusive	3 1/2			3 1/2	3 5/8	G	
21 to 34, inclusive	3 1/2			3 1/2	6 1/4	H	
36 to 60, inclusive	4 7/8			4 7/8	6 1/4	I	
62 and larger	4 7/8, 6 1/2, 8 1/2	4 7/8, 6 1/2, 8 1/2	Quoted on Ap- plication	6 1/2	6 1/2	J	
				8 1/2	7 1/2	K	



WOOD SPLIT PULLEYS

A Standard of Quality and Workmanship Guaranteed

This pulley is made for strength and wearing qualities. The rims of all pulleys over 11 inches in diameter are composed of segments, which are made from wide laggings from selected, thoroughly seasoned, kiln-dried wood. These segments are both glued and nailed, being nailed while glue is hot. The hubs and arms are of hard maple, which extend into the rim and are securely glued and nailed.

All pulleys 11 inches in diameter and under are made of the least number of pieces possible. A perfect unbreakable pulley. Pulleys 11 to 35 inches in diameter inclusive, as illustrated. 36 inch and larger have cross-arms. Every Pulley is balanced.

When ordering, always give Diameter, Face, Size of Shaft and whether Crown or Straight Face.

Fig. T109 SIZES AND NET PRICES—No Further Discount
WIDTH OF FACE, INCHES

Diam. Inches	3	4	5	6	8	10	12	14	16	18	20	22	24
4	\$1.82	\$1.89	\$2.02	\$2.15	\$2.41	\$2.67	\$2.93						
5	1.85	1.92	2.08	2.21	2.50	2.80	3.09						
6	1.89	1.95	2.11	2.28	2.60	2.93	3.25						
7	1.92	1.98	2.18	2.34	2.70	3.06	3.41	\$3.77					
8	1.95	2.02	2.21	2.41	2.80	3.19	3.58	3.97					
9	2.02	2.11	2.34	2.54	2.96	3.38	3.80	4.23					
10	2.11	2.21	2.44	2.67	3.12	3.58	4.03	4.49	\$4.94				
11	2.28	2.41	2.67	2.93	3.45	3.97	4.49	5.01	5.53				
12	2.44	2.60	2.89	3.19	3.77	4.36	4.94	5.53	6.11	\$6.70			
13		2.80	3.12	3.45	4.10	4.75	5.40	6.05	6.70	7.35			
14		2.99	3.35	3.71	4.42	5.14	5.85	6.57	7.28	8.00	\$8.71		
15		3.19	3.58	3.97	4.75	5.53	6.31	7.09	7.87	8.65	9.43		
16		3.38	3.80	4.22	5.07	5.92	6.76	7.61	8.45	9.30	10.14	\$10.99	
17		3.58	4.03	4.49	5.40	6.31	7.22	8.13	9.04	9.95	10.86	11.77	
18		3.77	4.26	4.75	5.72	6.70	7.67	8.65	9.62	10.60	11.57	12.55	\$13.52
19		3.97	4.49	5.01	6.05	7.09	8.13	9.17	10.21	11.25	12.29	13.33	14.37
20		4.16	4.71	5.27	6.37	7.48	8.58	9.69	10.79	11.90	13.00	14.11	15.21
22		4.55	5.17	5.79	7.02	8.26	9.49	10.73	11.96	13.20	14.43	15.67	16.90
24		5.01	5.72	6.44	7.87	9.30	10.73	12.16	13.59	15.02	16.45	17.88	19.31
26		5.46	6.27	7.09	8.71	10.34	11.96	13.59	15.21	16.84	18.46	20.09	21.71
28		5.92	6.83	7.74	9.56	11.38	13.20	15.02	16.84	18.66	20.48	22.30	24.12
30		6.37	7.38	8.39	10.40	12.42	14.43	16.45	18.46	20.48	22.49	24.51	26.52
32		6.83	7.93	9.04	11.25	13.46	15.67	17.88	20.09	22.30	24.51	26.72	28.93
34		7.41	8.55	9.75	12.16	14.56	16.97	19.37	21.78	24.18	26.59	28.99	31.40
36		7.87	9.17	10.47	13.07	15.67	18.27	20.87	23.47	26.07	28.67	31.27	33.87
38				11.18	13.78	16.77	19.77	22.36	25.16	27.95	30.75	33.54	36.34
40				11.90	14.89	17.88	20.87	23.86	26.85	29.84	32.83	35.82	38.81
42				12.74	15.99	19.24	22.49	25.74	28.99	32.25	35.49	38.74	41.99
44				13.59	17.10	20.61	24.12	27.63	31.14	34.65	38.16	41.67	45.18
46				14.50	18.27	22.04	25.81	29.58	33.35	37.12	40.89	44.66	48.43
48				15.47	19.50	23.53	27.56	31.59	35.62	39.65	43.68	47.71	51.74
50				16.51	20.80	25.09	29.38	33.67	37.96	42.25	46.54	50.83	55.12
52				17.62	22.17	26.72	31.27	35.82	40.37	44.92	49.47	54.02	58.57
54				18.79	23.60	28.41	33.22	38.03	42.84	47.65	52.46	57.27	62.08
56				20.02	25.09	30.16	35.23	40.30	45.37	50.44	55.51	60.58	65.65
58				21.32	26.65	31.98	37.31	42.64	47.97	53.30	58.63	63.96	69.29
60				22.69	28.28	33.87	39.46	45.05	50.64	56.23	61.82	67.41	73.00
62				24.12	29.97	35.82	41.67	47.52	53.37	59.22	65.07	70.92	76.77
64				25.61	31.72	37.83	43.94	50.05	56.16	62.27	68.38	74.49	80.60
66				27.24	33.67	40.11	46.54	52.98	59.41	65.85	72.28	78.72	85.15
68				28.93	35.69	42.45	49.21	55.97	62.73	69.49	76.25	83.01	89.77
70				30.68	37.77	44.85	51.94	59.02	66.11	73.19	80.28	87.36	94.45
72				32.50	39.91	47.32	54.73	62.14	69.55	76.96	84.37	91.78	99.19

WOOD BUSHINGS—One Furnished with Each Pulley

Made of four pieces by machines that form them perfectly true and they will conform to the shaft and run true and with a sure grip.

EXTRA BUSHINGS

Ten inch and shorter, 50c net.

Over ten inches long, 5c per inch net.

Standard Bores—Wood Split Pulleys

3 inches diameter	Bored 1½ inches
4 inches diameter	Bored 2 inches
5 and 6 inches diameter	Bored 2½ inches
7 to 12 inches diameter	Bored 3 inches
13 to 24 inches diameter	Bored 3½ inches
26 to 48 inches diameter	Bored 4 inches
50 to 72 inches diameter	Bored 4½ inches

Extra Prices for Holes Larger Than Standard Percentage to be added to Price List.

PULLEY DIAM., INCHES	15%	20%	25%	35%
BORE, IN INCHES				
Under 12.....	3⅛ to 4	4⅛ to 5	5⅛ to 6	.....
12 to 48.....	4⅛ to 4½	4⅛ to 6	6⅛ to 7½	7⅛ to 10

Special bores for larger pulleys—Price on application.

Non Listed pulleys

Odd sizes, take next larger size, both as to diameter and face.



STANDARD LINK BELTING



Fig. T112

NET PRICES PER FOOT

Number	Net Price per foot	Approximate Links per 10 ft.	Net Price Couplers per pair	Number	Net Price per foot	Approximate Links per 10 ft.	Net Price Couplers per pair	Number	Net Price per foot	Approximate Links per 10 ft.	Net Price Couplers per pair
25	\$0.11	133	\$0.11	51	\$0.16	104	\$0.16	75	\$0.21	46	\$0.21
32	.11	104	.11	52	.15	80	.15	77	.23	52	.23
33	.10	86	.10	55	.13	74	.13	78	.29	46	.29
34	.12	86	.12	57	.17	52	.17	83	.36	30	.36
35	.13	74	.12	62	.18	73	.18	88	.33	46	.33
42	.12	88	.12	66	.23	60	.23	103	.47	39	.47
45	.12	74	.12	67	.20	52	.20				

Link chain belting should lie on the wheel with the back or solid part of the coupling hook in contact with the rim, and in elevators and conveyors it should move with end-bar forward.

ATTACHMENT LINKS FOR LINK BELTING

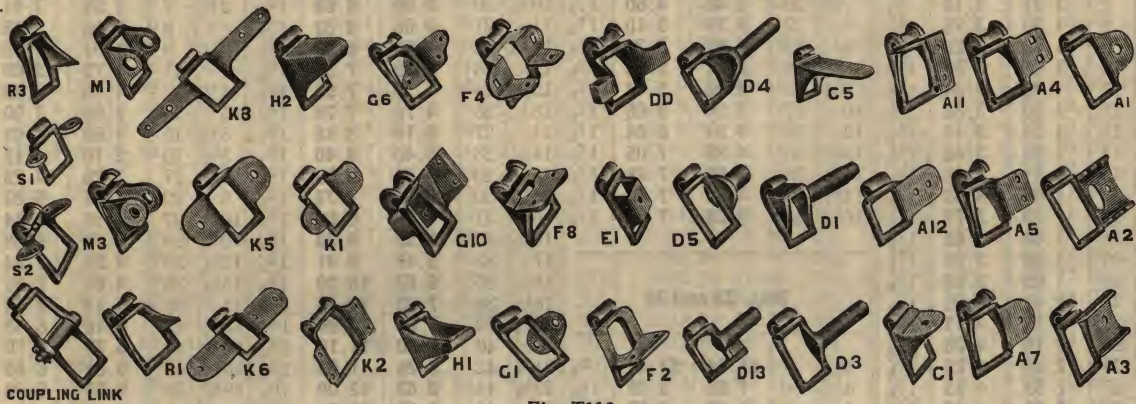


Fig. T113

NET PRICES EACH—MINIMUM CHARGE FOR LINKS 50c

No. 25	No. 34	No. 45 (Cont.)	No. 55	No. 62 (Cont.)	No. 85
A-1.....\$0.03	A-1.....\$0.05	D-3.....\$0.09	A-1.....\$0.05	K-1.....\$0.07	F-2.....\$0.49
C-1......03	C-1......06	D-5......08	A-2......08	K-5......09	K-2......34
C-5......04	C-2......05	E-1......04	A-3......08	S-1......09	
D-3......05	E-1......05	F-2......06	A-11......07		
D-8......07	K-1......05	G-1......09	A-12......08		
E-1......03		K-1......05	C-1......05	No. 67	No. 88
H-2......03		K-3......11	D-5......09	A-1.....\$0.10	A-1.....\$0.22
K-1......03		K-5......07	E-1......05	E-1......13	A-3......27
K-40......08	No. 35	K-40......09	F-2......07	K-1......11	D-5......30
M-1......04	A-1.....\$0.05	K-45......12	G-26......08		E-1......20
S-1......05	C-1......06	S-1......05	G-27......08	No. 75	F-2......20
	E-1......05	S-5......07	K-1......06	G-1.....\$0.20	F-8......24
	K-1......06		K-5......08	K-1......12	G-1......24
			L-2......06		G-6......24
			S-1......06	No. 77	K-1......17
				A-1.....\$0.11	
				C-1......13	
				D-5......15	No. 95
				E-1......12	F-2.....\$0.53
				G-1......13	K-2......37
				G-6......17	
				K-1......13	
					No. 103
					A-4.....\$0.33
					A-11......36
					D-5......44
					E-1......36
					F-2......33
					G-6......36
					K-1......29
					K-2......30
					No. 108
					F-2.....\$0.67
					K-2......45

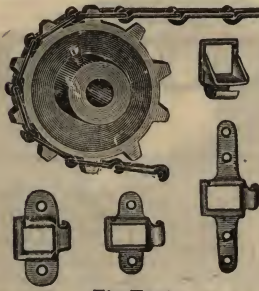


Fig. T110

CAST IRON SPROCKET WHEELS

Prices below are for sprockets bored not larger than specified. We can furnish sprockets with any size bore, under the largest bore given, at the price quoted. For larger bores than specified, see extra list on next page. Price of sprocket includes either set screws or keyseat if both are required a small additional charge is made.



NET PRICES

No. 25					No. 32 (Cont.)					Nos. 35, 55 and 55 (Cont.)					No. 51				
Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.	Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.	Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.	Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.
1 1/2	5	\$1.24	\$3.11	5/8	5 1/2	15	\$1.91	\$3.94	1 7/8	9 1/4	18	\$3.53	\$6.30	1 5/8	13 3/4	5	\$1.46	\$3.34	3/4
1 3/4	6	1.28	3.15	3/4	5 3/4	16	2.03	4.05	1 7/8	9 3/4	19	3.71	6.49	1 5/8	21 1/4	6	1.50	3.38	3/4
2	7	1.31	3.19	3/4	7 1/2	20	2.48	4.50	1 7/8	10 1/4	20	3.90	6.68	1 5/8	21 1/2	7	1.54	3.41	3/4
2 1/4	8	1.35	3.23	3/4	8	22	2.70	5.10	1 7/8	11	21	4.05	6.83	1 5/8	3	8	1.58	3.45	5/8
2 1/2	9	1.39	3.26	3/4	8 1/2	23	2.81	5.21	1 7/8	11 1/2	22	4.20	6.98	1 5/8	3 1/4	9	1.61	3.49	5/8
3	10	1.43	3.30	1 3/8	8 3/4	24	2.93	5.33	1 7/8	12	23	4.39	7.39	1 5/8	4	11	1.73	3.60	1 3/8
3 1/4	11	1.46	3.34	1 3/8	9 1/4	25	3.04	5.44	1 7/8	12 1/2	24	4.58	7.58	1 5/8	4 1/2	12	1.80	3.83	1 3/8
3 1/2	12	1.50	3.38	1 3/8	10	27	3.26	5.66	1 7/8	13	25	4.76	7.76	1 5/8	5	14	1.88	3.90	1 3/8
3 3/4	13	1.54	3.41	1 3/8	12	33	3.94	6.64	1 7/8	14	27	5.18	8.18	1 5/8	5 1/2	15	1.99	4.01	1 3/8
4	14	1.58	3.45	1 3/8	13 1/4	36	4.35	7.05	1 7/8	14 1/2	28	5.40	8.40	1 5/8	5 3/4	16	2.10	4.13	1 3/8
4 1/4	15	1.61	3.49	1 3/8	14	38	4.58	7.28	1 7/8	15	29	5.59	8.59	1 5/8	6 1/4	17	2.25	4.28	1 3/8
4 1/2	16	1.65	3.68	1 3/8	14 3/4	40	4.80	7.50	1 7/8	15 1/2	30	5.78	8.78	1 5/8	8	22	2.93	5.33	1 3/8
5	17	1.73	3.75	1 3/8	16 1/4	44	5.25	7.95	1 7/8	16	31	6.00	9.00	1 5/8	10	27	3.56	6.34	1 5/8
5 1/4	18	1.80	3.83	1 3/8						16 1/2	32	6.23	9.23	1 5/8	10 1/2	29	3.79	6.56	1 5/8
5 1/2	19	1.88	3.90	1 3/8						17	33	6.41	9.41	1 5/8	12 1/4	33	4.24	7.24	1 5/8
5 3/4	20	1.95	3.98	1 3/8						18	35	6.83	10.20	1 5/8	13 1/4	36	4.80	7.80	1 5/8
6	21	2.03	4.05	1 3/8						18 1/2	36	7.05	10.43	1 5/8	14	39	5.14	8.14	1 5/8
6 1/4	22	2.10	4.13	1 3/8						20 1/4	39	7.61	10.99	1 5/8	15 1/2	42	5.48	8.48	1 5/8
6 1/2	23	2.18	4.20	1 3/8						20 3/4	40	7.80	11.18	1 5/8	16 1/4	44	5.70	8.70	1 5/8
7	24	2.25	4.28	1 3/8						21 3/4	42	8.25	11.63	1 5/8	16 1/2	45	5.85	8.85	1 5/8
7 1/4	25	2.33	4.35	1 3/8						22 3/4	44	8.63	12.00	1 5/8	18 1/4	50	6.53	9.90	1 5/8
7 1/2	26	2.40	4.43	1 3/8						23 1/4	45	8.85	12.23	1 5/8					
7 3/4	27	2.48	4.50	1 3/8						23 3/4	46	9.08	12.45	1 5/8					
8	28	2.55	4.95	1 3/8						24 3/4	48	9.45	13.95	1 5/8					
8 3/4	30	2.70	5.10	1 3/8						25 1/4	49	9.68	14.18	1 5/8					
9 1/4	32	2.85	5.25	1 3/8						25 3/4	50	9.90	14.40	1 5/8					
9 1/2	33	2.93	5.33	1 3/8						28	54	10.88	15.38	1 5/8					
9 3/4	34	3.00	5.40	1 3/8						30	58	11.70	16.95	1 5/8					
10	35	3.08	5.48	1 3/8						34 3/4	69	15.56	20.81	1 5/8					
10 3/4	37	3.23	5.63	1 3/8						42	82	21.38	28.13	1 5/8					
11 1/2	40	3.45	5.85	1 3/8															
12	42	3.60	6.30	1 3/8															
12 3/4	44	4.05	6.75	1 3/8															
13	45	4.13	6.83	1 3/8															
13 3/4	48	4.35	7.05	1 3/8															
14 1/2	50	4.50	7.20	1 3/8															
15	52	4.65	7.35	1 3/8															
15 1/2	54	4.80	7.50	1 3/8															
16	56	4.95	7.65	1 3/8															
17 1/4	60	5.25	7.95	1 3/8															
18 1/4	64	5.70	8.70	1 3/8															
20	70	6.15	9.15	1 3/8															
24	85	7.80	12.00	1 3/8															

Nos. 33 and 34					No. 42					Nos. 35, 45 and 55					No. 52				
Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.	Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.	Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.	Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.
3 1/4	7	\$1.54	\$3.41	1 3/8	3 1/4	7	\$1.61	\$3.49	1 3/8	2 1/2	5	\$1.54	\$3.41	1 3/8	3	6	\$1.58	\$3.45	1 3/8
3 1/2	8	1.58	3.45	1 3/8	3 3/4	8	1.65	3.53	1 3/8	3	6	1.58	3.45	1 3/8	3 1/4	7	1.65	3.53	1 3/8
4	9	1.65	3.53	1 3/8	4 1/4	9	1.73	3.60	1 3/8	3 1/2	7	1.65	3.53	1 3/8	3 3/4	8	1.73	3.60	1 3/8
4 1/2	10	1.73	3.75	1 3/8	4 3/4	10	1.88	3.83	1 3/8	4 1/4	8	1.73	3.60	1 3/8	4 1/4	9	1.88	3.75	1 3/8
5	11	1.80	3.83	1 3/8	5 1/2	12	1.88	3.90	1 3/8	4 3/4	9	1.88	3.75	1 3/8	5 1/4	10	2.03	4.05	1 3/8
5 1/2	12	1.88	3.90	1 3/8	6 1/4	14	2.10	4.13	1 3/8	5 1/2	11	2.21	4.24	1 3/8	5 3/4	12	2.21	4.24	1 3/8
6 1/4	14	2.10	4.13	1 3/8	6 3/4	15	2.25	4.28	1 3/8	6 1/4	13	2.59	4.61	1 3/8	6 3/4	13	2.59	4.61	1 3/8
6 3/4	16	2.40	4.43	1 3/8	7 1/4	16	2.40	4.43	1 3/8	6 3/4	14	2.78	4.80	1 3/8	6 3/4	14	2.78	4.80	1 3/8
8	18	2.70	5.10	1 3/8	8 1/2	18	2.70	5.10	1 3/8	7 1/4	15	2.93	4.95	1 3/8	7 1/4	15	2.93	4.95	1 3/8
8 1/2	19	2.85	5.25	1 3/8	9 3/4	22	3.30	5.70	1 3/8	8 1/4	16	3.08	5.10	1 3/8	8 1/4	16	3.08	5.10	1 3/8
9 1/2	22	3.30	5.70	1 3/8	10 3/4	24	3.53	5.93	1 3/8	9 1/2	17	3.26	5.66	1 3/8	9 1/2	17	3.26	5.66	1 3/8
10 3/4	24	3.53	5.93	1 3/8	12	27	3.90	6.60	1 3/8	10 1/2	24	3.83	6.60	1 3/8	10 1/2	24	3.83	6.60	1 3/8
12	27	3.90	6.60	1 3/8	13	29	4.28	6.98	1 3/8	11 1/2	27	4.35	7.13	1 3/8	11 1/2	27	4.35	7.13	1 3/8
13	29	4.28	6.98	1 3/8	14 1/4	32	4.73	7.43	1 3/8	12 1/4	28	4.50	7.50	1 3/8	12 1/4	28	4.50	7.50	1 3/8
14 1/4	32	4.73	7.43	1 3/8	15 1/4	34	5.03	7.73	1 3/8	14 1/4	30	5.25	8.25	1 3/8	14 1/4	30	5.25	8.25	1 3/8
15 1/4	34	5.03	7.73	1 3/8	16	36	5.25	7.95	1 3/8	15 3/4	36	5.85	8.85	1 3/8	15 3/4	36	5.85	8.85	1 3/8
16 1/4	41	5.93	8.93	1 3/8	18 1/4	41	5.93	8.93	1 3/8	18	41	6.60	9.98	1 3/8	18	41	6.60	9.98	1 3/8

No. 32					No. 42					No. 52				
Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.	Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.	Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.
2	5	\$1.39	\$3.26	5/8	3 1/4	7	\$1.61	\$3.49	1 3/8	3	6	\$1.58	\$3.45	1 3/8
2 1/4	6	1.43	3.30	3/4	3 3/4	8	1.65	3.53	1 3/8	3 1/4	7	1.65	3.53	1 3/8
2 1/2	7	1.46	3.34	3/4	4 1/4	9	1.73	3.60	1 3/8	3 3/4	8	1.73	3.60	1 3/8
3	8	1.50	3.38	1 3/8	4 3/4	10	1.88	3.83	1 3/8	4 1/4	9	1.88	3.75	1 3/8
3 1/4	9	1.54	3.41	1 3/8	5 1/2	12	1.88	3.90	1 3/8	4 3/4	10	2.03	4.05	1 3/8
3 3/4	10	1.58	3.45	1 3/8	6 1/4	14	2.10	4.13	1 3/8	5 1/4	11	2.21	4.24	1 3/8
4 1/2	12	1.65	3.68	1 3/8	6 3/4	15	2.25	4.28	1 3/8	5 3/4	12	2.40	4.43	1 3/8
4 3/4	13	1.73	3.75	1 3/8	7 1/4	16	2.40	4.43	1 3/8	6 1/4	13	2.59	4.61	1 3/8

SPROCKET WHEELS—Continued

SIZES AND NET PRICES

No. 62					Nos. 57, 67, 77—(Cont.)					Nos. 75, 78, 88					Nos. 75, 78, 88—(Cont.)				
Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.	Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.	Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.	Pitch Dia., Inches	No. of Teeth	Net Price Solid	Net Price Split	Largest Bore at Price, Ins.
3 3/4	7	\$1.73	\$3.60	1 5/16	14 3/4	20	\$6.15	\$9.38	2 7/16	4 1/2	5	\$2.25	\$4.13	1 3/16	41 1/2	50	\$22.50	\$28.88	2 5/16
4 1/4	8	1.80	3.68	1 5/16	15 1/2	21	6.45	9.68	2 7/16	5 1/4	6	2.55	4.58	1 7/16	43 1/4	52	24.00	31.28	2 5/16
4 3/4	9	1.95	3.83	1 5/16	16 1/4	22	6.75	9.98	2 7/16	6	7	2.78	4.81	1 7/16	45	54	25.50	32.78	2 5/16
5 1/4	10	2.10	4.13	1 7/16	17	23	7.05	10.28	2 7/16	6 3/4	8	3.00	5.40	1 15/16	48 1/4	58	29.25	38.55	3 7/16
5 3/4	11	2.40	4.43	1 7/16	17 3/4	24	7.35	10.58	2 7/16	7 1/2	9	3.38	5.78	1 15/16	50	60	33.00	42.30	3 7/16
6 1/4	12	2.70	4.88	1 15/16	18 1/4	25	7.65	11.25	2 7/16	8 1/2	10	3.75	6.53	1 15/16	54	65	39.00	48.90	3 7/16
7 1/2	14	3.15	5.55	1 15/16	19	26	7.95	11.55	2 7/16	9 1/4	11	4.16	6.94	1 15/16	64	77	55.50	66.38	3 7/16
8	15	3.34	6.11	1 15/16	19 3/4	27	8.25	11.85	2 7/16	10	12	4.58	7.58	2 7/16					
8 1/2	16	3.53	6.30	1 15/16	20 1/2	28	8.55	12.15	2 7/16	11 3/4	14	5.40	8.70	2 15/16					
9 1/2	18	3.90	6.68	1 15/16	22	30	9.15	12.75	2 7/16	12 1/2	15	5.70	9.23	2 15/16					
10	19	4.20	6.98	1 15/16	23 1/2	32	9.75	13.35	2 7/16	13 1/4	16	6.00	9.53	2 15/16					
10 1/2	20	4.50	7.50	2 7/16	24 1/4	33	10.13	14.93	2 7/16	14 1/4	17	6.38	9.91	2 15/16					
11 1/2	22	4.88	7.88	2 7/16	25	34	10.50	15.30	2 7/16	15	18	6.75	10.28	2 15/16					
12 1/4	23	5.06	8.29	2 7/16	25 3/4	35	10.80	15.60	2 7/16	15 3/4	19	7.13	10.66	2 15/16					
14 3/4	28	6.08	9.30	2 7/16	26 1/2	36	11.10	15.90	2 7/16	16 3/4	20	7.50	11.03	2 15/16					
15 3/4	30	6.53	9.75	2 7/16	28	38	11.70	16.50	2 7/16	17 1/2	21	7.88	11.41	2 15/16					
18	34	7.35	10.95	2 7/16	29 1/4	40	12.38	17.18	2 7/16	18 1/4	22	8.25	12.15	2 15/16					
20	38	8.25	11.85	2 7/16	30	41	12.94	18.41	2 7/16	19 1/4	23	8.70	12.60	2 15/16					
23	43	9.38	12.98	2 7/16	31 1/2	43	14.06	19.54	2 7/16	20	24	9.15	13.05	2 15/16					
23 3/4	45	9.83	13.43	2 7/16	32 1/2	44	14.63	20.10	2 7/16	20 3/4	25	9.53	13.43	2 15/16					
25 3/4	49	10.73	15.53	2 7/16	35 1/4	48	16.88	22.35	2 7/16	21 3/4	26	9.90	13.80	2 15/16					
30 1/2	58	13.05	18.53	2 7/16	36	49	17.44	23.51	2 7/16	22 1/2	27	10.28	14.18	2 15/16					
					38 1/2	52	19.13	25.20	2 7/16	23 1/4	28	10.65	14.55	2 15/16					
					39 3/4	54	20.25	26.33	2 7/16	24 1/4	29	11.03	16.13	2 15/16					
					41 1/2	56	21.38	27.45	2 7/16	25	30	11.40	16.50	2 15/16					
					43	59	23.06	30.04	2 7/16	25 3/4	31	11.70	16.80	2 15/16					
					43 3/4	60	23.63	30.60	2 7/16	26 1/2	32	12.00	17.10	2 15/16					
					47	64	25.50	32.48	2 7/16	27 1/2	33	12.38	17.48	2 15/16					
					54	74	35.25	45.00	2 7/16	28 1/4	34	12.75	17.85	2 15/16					
										29	35	13.13	18.23	2 15/16					
										30	36	13.50	19.28	2 15/16					
										30 3/4	37	14.06	19.84	2 15/16					
										31 1/2	38	14.63	20.41	2 15/16					
										32 1/2	39	15.19	20.97	2 15/16					
										33 1/4	40	15.75	21.53	2 15/16					
										35	42	16.88	22.66	2 15/16					
										36 1/2	44	18.38	24.76	2 15/16					
										38 1/4	46	19.88	26.26	2 15/16					
										40	48	21.00	27.28	2 15/16					
										40 3/4	49	21.75	28.13	2 15/16					

No. 103

6	6	\$3.00	\$5.40	1 5/16
7	7	3.38	5.78	1 5/16
8	8	3.75	6.75	2 7/16
9	9	4.31	7.31	2 7/16
10	10	4.88	8.18	2 15/16
11	11	5.25	8.55	2 15/16
12	12	5.63	8.93	2 15/16
12 3/4	13	6.19	9.72	2 15/16
13 3/4	14	6.75	10.28	2 15/16
14 3/4	15	7.13	10.66	2 15/16
15 3/4	16	7.50	11.03	2 15/16
16 3/4	17	7.88	11.41	2 15/16
17 3/4	18	8.25	11.78	2 15/16
18 3/4	19	8.63	12.53	2 15/16
19 3/4	20	9.00	12.90	2 15/16
21 1/2	22	10.13	14.03	2 15/16
22 1/2	23	10.50	14.40	2 15/16
23 1/2	24	10.88	14.78	2 15/16
25 1/2	26	12.00	17.10	2 15/16
27 1/2	28	13.50	18.60	2 15/16
30 1/2	31	15.38	21.16	2 15/16
32 1/4	33	17.06	22.84	2 15/16
37 1/4	38	22.50	29.33	3 7/16
41 1/4	42	27.75	34.58	3 7/16
45	46	30.75	38.63	3 7/16
48	49	33.94	41.83	3 7/16
66 1/2	68	66.75	80.85	3 7/16

Sprockets for Odd Sizes of Chain Furnished—Prices on Application.

EXTRA FOR BORES LARGER THAN SPECIFIED IN THE FOREGOING LISTS

When Listed Bore is	Add to Net Prices for Larger Bore as Below											
	1 1/16	1 1/8	1 1/4	1 1/2	2 1/8	2 1/4	2 1/2	2 3/4	3 1/8	3 1/4	4 1/8	5 1/8
1 1/4-inch	\$0.15	\$0.37	\$0.82	\$1.20	\$1.65	\$2.02	\$2.40	\$2.85	\$3.82			
1 1/2-inch		.22	.67	1.05	1.50	1.87	2.25	2.70	3.67			
1 3/4-inch			.45	.82	1.27	1.65	2.02	2.47	3.45	\$4.80		
2-inch				.37	.82	1.20	1.57	2.02	3.00	4.35	\$6.22	
2 1/4-inch					.45	.82	1.20	1.65	2.62	3.97	5.85	\$7.72
2 1/2-inch						.37	.75	1.20	2.17	3.52	5.40	7.27
2 3/4-inch							.37	.82	1.80	3.15	5.02	6.90
3-inch								.45	2.77	4.65	6.52	9.52
3 1/4-inch									.97	2.32	4.20	6.07
3 1/2-inch										1.35	3.22	5.10
3 3/4-inch											1.87	3.75
4-inch												6.75
4 1/4-inch												10.05

STEEL BUSHED ROLLER CHAIN

Fig. T111—NET PRICE PER FOOT

Size	Average Links to 10 feet	Average Ultimate Strength Pounds	Runs on Sprockets No.	With Steel Rollers		With Mal. Iron Rollers		Price Each, Offset Couplers	
				Riveted	Detachable	Riveted	Detachable	With Steel Rollers	With Malleable Rollers
EC- 62	73	7000	62	\$1.18	\$1.23			\$0.28	
EC- 88	46	11000	88	1.00	1.06	\$0.88	\$0.93	.35	\$0.32
EC-103	39	11500	103	1.44	1.48	1.08	1.12	.60	.48

COLD ROLLED STEEL SHAFTING

Fig. T114

Only the best quality of soft steel, having a great torsional resistance, is used in the manufacture of our shafting. This is rolled by a patented process which produces shafting that is straight and true, having a perfectly smooth polished surface, and mathematically accurate as to size.

When shipped in lengths over 22 feet long the Railroads make a minimum charge for 1000 pounds of freight.

SIZES AND NET PRICES

Diam. of Shaft Inches	Price per foot	Weight per foot pounds	Width of Standard Key Seat	Depth of Standard Key Seat	*Approx. H. P. at 100 R. P. M.
-----------------------	----------------	------------------------	----------------------------	----------------------------	--------------------------------

STANDARD STOCK SIZES

$1\frac{1}{16}$	\$0.12	2.35	$\frac{1}{4}$	$\frac{1}{8}$	.9
1	.13	2.67	$\frac{1}{4}$	$\frac{1}{8}$	1.1
$1\frac{3}{16}$	.18	3.77	$\frac{5}{16}$	$\frac{5}{32}$	1.8
$1\frac{1}{2}$	.27	5.52	$\frac{3}{8}$	$\frac{3}{16}$	3.3
$1\frac{1}{2}$	.29	6.00	$\frac{3}{8}$	$\frac{3}{16}$	3.7
$1\frac{11}{16}$	.37	7.60	$\frac{3}{8}$	$\frac{3}{16}$	5.3
$1\frac{1}{2}$	.46	10.03	$\frac{1}{2}$	$\frac{1}{4}$	8.
2	.49	10.68	$\frac{1}{2}$	$\frac{1}{4}$	8.8
$2\frac{3}{16}$	.59	12.78	$\frac{1}{2}$	$\frac{1}{4}$	11.5
$2\frac{1}{2}$	.71	15.87	$\frac{5}{8}$	$\frac{5}{16}$	15.9
$2\frac{1}{2}$	1.08	23.05	$\frac{3}{4}$	$\frac{3}{8}$	27.8

ODD OR SPECIAL SIZES

$1\frac{1}{8}$	\$0.21	3.38	$\frac{1}{4}$	$\frac{1}{8}$	1.5
$1\frac{1}{4}$	.26	4.17	$\frac{5}{16}$	$\frac{5}{32}$	2.1
$1\frac{5}{16}$	.29	4.60	$\frac{5}{16}$	$\frac{5}{32}$	2.5
$1\frac{3}{8}$	.31	5.05	$\frac{5}{16}$	$\frac{5}{32}$	2.8
$1\frac{5}{8}$	.43	7.05	$\frac{3}{8}$	$\frac{3}{16}$	4.7
$1\frac{3}{4}$	.50	8.18	$\frac{3}{8}$	$\frac{3}{16}$	5.8
$1\frac{7}{8}$	.58	9.39	$\frac{3}{8}$	$\frac{3}{16}$	7.2
$2\frac{1}{8}$	.70	12.06	$\frac{1}{2}$	$\frac{1}{4}$	10.5
$2\frac{1}{4}$	.77	13.52	$\frac{1}{2}$	$\frac{1}{4}$	12.5
$2\frac{5}{16}$	.81	14.28	$\frac{1}{2}$	$\frac{1}{4}$	13.5
$2\frac{3}{8}$	.85	15.06	$\frac{1}{2}$	$\frac{1}{4}$	14.7
$2\frac{1}{2}$	.95	16.69	$\frac{5}{8}$	$\frac{5}{16}$	17.2
$2\frac{5}{8}$	1.04	18.40	$\frac{5}{8}$	$\frac{5}{16}$	19.9
$2\frac{11}{16}$	1.09	19.29	$\frac{5}{8}$	$\frac{5}{16}$	21.4
$2\frac{3}{4}$	1.14	20.19	$\frac{5}{8}$	$\frac{5}{16}$	22.8
$3\frac{1}{16}$	1.83	31.56	$\frac{7}{8}$	$\frac{7}{16}$	44.7
$3\frac{3}{16}$	2.57	41.41	1	$\frac{1}{2}$	67.2
$4\frac{1}{16}$	3.40	52.59	$1\frac{1}{8}$	$\frac{9}{16}$	96.1
$4\frac{1}{2}$	4.43	65.10	$1\frac{1}{4}$	$\frac{5}{8}$	133.2

Above Prices are for Standard Lengths only, as 6'-8'-10'-16'-18'-20' long.

For intermediate lengths add 10% to price per foot.

Less than 6 foot lengths, add 20% to price per foot.

For other sizes than listed and lengths over 20 feet to 24 feet long, add 10% to price per foot.

Key-Seating when desired will be charged for, at our regular rate.

Boxing Shafts for shipment when wanted will be charged at 50 cents per 100 lbs. extra. Minimum net charge 50 cents.

*Horse Power ratings shown are for main shafts under heavy service. For medium heavy service and shafts carrying gearing the rating may be increased 25%, and for light service shafts carrying pulleys only, may be increased 60%.

NET PRICES STANDARD KEY SEATING

No. 1 Key Seat—Milled Ends				No. 2 Key Seat—Drilled Ends		
Diameter of Shaft	For Coupling Each End	Middle Spline		For Coupling Each End	Middle Spline	
		12" or Less	Each additional foot or fraction		12" or Less	Each additional foot or fraction
$\frac{3}{4}$ — $1\frac{1}{4}$	\$0.80	\$1.60	\$0.50	\$1.20	\$2.40	\$0.50
$1\frac{1}{16}$ — $1\frac{3}{4}$	.90	1.80	.60	1.35	2.70	.60
$1\frac{1}{2}$ — $2\frac{1}{4}$	1.00	2.00	.70	1.50	3.00	.70
$2\frac{5}{16}$ — $2\frac{3}{4}$	1.40	2.60	.80	2.10	3.90	.80
$2\frac{1}{2}$ — $3\frac{1}{4}$	1.90	3.10	1.00	2.85	4.65	1.00
$3\frac{5}{16}$ — $3\frac{3}{4}$	2.50	3.60	1.20	3.75	5.40	1.20
$3\frac{1}{2}$ — $4\frac{1}{4}$	3.00	4.10	1.50	4.50	6.15	1.50
$4\frac{1}{16}$ — $4\frac{3}{4}$	3.30	4.50	1.80	4.95	6.75	1.80



Fig. T115

SAFETY SET COLLARS

Made solid and split for all sizes of shafting.

All sizes of collars up to and inclusive of $2\frac{1}{16}$ inch are made of pressed cold rolled steel and all collars over $2\frac{1}{16}$ inch are made of cast iron, faced on one side.

SIZES AND NET PRICES

Size In.	Price Each	Size In.	Price Each	Size In.	Price Each
$\frac{1}{2}$	\$0.12	$1\frac{5}{8}$	\$0.34	$2\frac{11}{16}$	\$0.60
$\frac{5}{8}$	.14	$1\frac{11}{16}$	.35	$2\frac{3}{4}$	.65
$\frac{3}{4}$	.16	$1\frac{3}{4}$	.38	$2\frac{13}{16}$	.66
$\frac{7}{8}$	.18	$1\frac{13}{16}$	.39	$2\frac{7}{8}$	.67
$1\frac{1}{16}$	.20	$1\frac{7}{8}$	.40	$2\frac{15}{16}$	.67
1	.23	$1\frac{15}{16}$	.41	3	.69
$1\frac{1}{8}$	.24	2	.42	$3\frac{1}{16}$	.76
$1\frac{1}{4}$	.25	$2\frac{1}{8}$	.43	$3\frac{1}{2}$	.84
$1\frac{1}{2}$	.28	$2\frac{1}{4}$	.45	$3\frac{3}{4}$	.92
$1\frac{5}{8}$	.29	$2\frac{3}{8}$	.48	$3\frac{11}{16}$	1.00
$1\frac{3}{4}$	.30	$2\frac{5}{8}$	.49	$4\frac{1}{16}$	1.16
$1\frac{7}{8}$	.31	$2\frac{1}{2}$	.51	$4\frac{1}{8}$	1.32
$1\frac{1}{2}$	.32	$2\frac{1}{2}$	.55	$4\frac{1}{4}$	1.48
$1\frac{9}{16}$	.33	$2\frac{5}{8}$	.58	$4\frac{1}{2}$	1.65

For price on Split Collars add 50% to the net price each.

CINCH COMPRESSION COUPLINGS**SIZES AND NET PRICES**

Size of Shaft, Inches	Price Each	Size of Shaft, Inches	Price Each
$1\frac{5}{16}$	\$2.75	$1\frac{11}{16}$	\$4.35
1.....	3.25	$1\frac{3}{4}$	4.75
$1\frac{3}{16}$	3.30	$1\frac{15}{16}$	5.50
$1\frac{1}{4}$	3.75	2.....	5.75
$1\frac{1}{2}$	3.80	$2\frac{1}{16}$	6.25
$1\frac{1}{2}$	4.00	$2\frac{1}{8}$	7.50

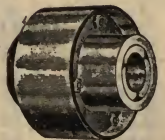


Fig. T116

For reducer coupling add 20% to net price of larger size.

SOLID SLEEVE COUPLINGS**SIZES AND NET PRICES**

Size of Shaft, Inches	Price Each	Size of Shaft, Inches	Price Each
$1\frac{5}{16}$	\$1.75	$1\frac{3}{8}$	\$2.30
1.....	1.85	$1\frac{1}{2}$	2.35
$1\frac{1}{8}$	1.90	$1\frac{1}{2}$	2.50
$1\frac{1}{4}$	2.00	$1\frac{11}{16}$	2.65
$1\frac{1}{4}$	2.15	$1\frac{15}{16}$	3.25



Fig. T117

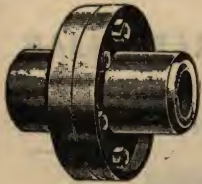


Fig. T118

FLANGE COUPLINGS

Finished all over and furnished complete with tight fitting bolts and keys.

SIZES AND NET PRICES

Size Shaft, Inches	Length on Shaft, Inches	Outside Dia. of Coupling, Inches	Price Each, Not Fitted	Price Each, Fitted to Shaft,
1 $\frac{1}{16}$	5 $\frac{1}{4}$	7 $\frac{3}{4}$	\$ 5.85	\$ 7.80
1 $\frac{1}{8}$	5 $\frac{3}{4}$	8	6.83	8.78
1 $\frac{1}{4}$	6 $\frac{1}{4}$	8 $\frac{1}{4}$	7.48	9.43
2 $\frac{1}{8}$	6 $\frac{7}{8}$	9 $\frac{1}{4}$	8.45	10.73
2 $\frac{1}{2}$	7 $\frac{3}{8}$	9 $\frac{1}{2}$	9.43	12.03
2 $\frac{1}{4}$	8	10 $\frac{1}{4}$	11.38	14.30
2 $\frac{1}{2}$	8 $\frac{3}{4}$	11	13.98	17.23
3 $\frac{1}{8}$	9 $\frac{1}{4}$	11 $\frac{7}{8}$	16.90	21.45
3 $\frac{1}{4}$	9 $\frac{3}{4}$	12 $\frac{1}{4}$	18.53	23.08
3 $\frac{1}{2}$	10 $\frac{1}{4}$	12 $\frac{1}{2}$	21.78	26.65
3 $\frac{3}{4}$	10 $\frac{3}{4}$	13 $\frac{1}{4}$	23.40	28.60
4 $\frac{1}{8}$	11 $\frac{3}{8}$	14 $\frac{1}{2}$	31.85	37.70
4 $\frac{1}{2}$	11 $\frac{3}{4}$	15 $\frac{1}{4}$	40.95	46.15
4 $\frac{3}{4}$	12 $\frac{1}{2}$	15 $\frac{3}{4}$	44.20	49.40
4 $\frac{1}{2}$	13	16 $\frac{1}{2}$	48.75	55.90

For reducing couplings add 20 per cent to net price for the larger size.

RIBBED COMPRESSION COUPLINGS

Clamps to shaft with all the direct force of bolts. Can be removed without disturbing shaft.



Fig. T119

SIZES AND NET PRICES

Size Shaft, Inches	Extreme Length on Shaft	Outside Diam. of Coupling, Inches	Net Price Coupling
1 $\frac{1}{16}$	6	4 $\frac{3}{4}$	\$ 3.80
1 $\frac{1}{8}$	6 $\frac{7}{8}$	5 $\frac{1}{8}$	4.44
1 $\frac{1}{4}$	7 $\frac{5}{8}$	5 $\frac{1}{2}$	5.38
2 $\frac{1}{8}$	8 $\frac{1}{2}$	5 $\frac{7}{8}$	6.34
2 $\frac{1}{2}$	9 $\frac{1}{4}$	6 $\frac{1}{2}$	6.99
2 $\frac{1}{4}$	9 $\frac{1}{4}$	6 $\frac{1}{2}$	7.93
2 $\frac{1}{2}$	10 $\frac{7}{8}$	7 $\frac{3}{8}$	9.51
3 $\frac{1}{8}$	10 $\frac{7}{8}$	7 $\frac{3}{8}$	12.04
3 $\frac{1}{4}$	13	8 $\frac{3}{8}$	13.62
3 $\frac{1}{2}$	13	8 $\frac{5}{8}$	15.53
3 $\frac{3}{4}$	13	8 $\frac{5}{8}$	17.74
4 $\frac{1}{8}$	16	9 $\frac{1}{2}$	24.08

ROSETTE BEARINGS

Babbitted and Fitted with Grease Cups

SIZES AND NET PRICES



Fig. T120

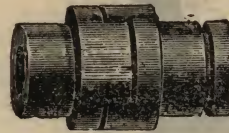
Size Shaft, Inches	Net Price Each	Size Shaft, Inches	Net Price Each
3 $\frac{1}{4}$	\$0.65	1 $\frac{1}{16}$	\$0.90
7 $\frac{1}{8}$	.70	1 $\frac{1}{2}$	1.00
1 $\frac{1}{8}$	.75	1 $\frac{1}{4}$	1.40
1	.80	1 $\frac{1}{2}$	1.75
1 $\frac{1}{4}$	.85		

JAW CLUTCH COUPLINGS

Made with either spiral or square jaws. Spiral jaws either right or left-hand. Left-hand shown in cut.

An extra charge is made for pulleys, sprockets, or gears cast with clutch hubs.

State whether clutch or wheel is to drive and send sketch showing arrangement and direction shaft revolves. For reduction coupling, add 20% to price of largest bore. Furnished with yoke and collar. Levers not furnished.

Fig. T121
Square JawFig. T122
Spiral Jaw

SIZES AND NET PRICES

Size of Shaft	Length on Shaft	Net Price per Pair	Size of Shaft	Length on Shaft	Net Price per Pair
1 $\frac{1}{16}$	6 $\frac{1}{4}$	\$ 6.95	2 $\frac{1}{16}$	11 $\frac{7}{8}$	\$15.35
1 $\frac{1}{8}$	7 $\frac{1}{8}$	7.45	2 $\frac{1}{4}$	12 $\frac{3}{4}$	17.35
1 $\frac{1}{4}$	8	8.15	3 $\frac{1}{8}$	13 $\frac{3}{8}$	19.75
1 $\frac{1}{2}$	8 $\frac{5}{8}$	8.90	3 $\frac{1}{4}$	14	21.85
1 $\frac{3}{4}$	9 $\frac{3}{8}$	10.35	3 $\frac{1}{2}$	15	24.10
2 $\frac{1}{8}$	10 $\frac{1}{4}$	11.80	3 $\frac{3}{4}$	17 $\frac{3}{8}$	28.05
2 $\frac{1}{4}$	10 $\frac{7}{8}$	13.50	4 $\frac{1}{8}$	19	35.95

RIGID PILLOW BLOCKS

Heavy Pattern

With Split and Babbitted Bearings

PLAIN OILING AND RING OILING

Unless otherwise stated, Plain Oiling Boxes will be sent.

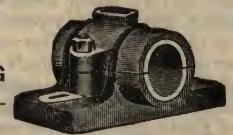


Fig. T123

SIZES AND NET PRICES

Plain Oiling			Ring Oiling		
Size, Shaft Inches	Lgth. Brg. P.O.	Price Each Net	Size Shaft, Inches	Lgth. Brg. R.O.	Price Each Net
1 $\frac{1}{16}$ or 1	2 $\frac{1}{16}$	\$0.75	1 $\frac{1}{16}$ or 1	4 $\frac{3}{4}$	\$2.20
1 $\frac{1}{8}$ or 1 $\frac{1}{4}$	3 $\frac{5}{8}$	.90	1 $\frac{1}{8}$ or 1 $\frac{1}{4}$	5 $\frac{3}{4}$	2.35
1 $\frac{1}{4}$ or 1 $\frac{1}{2}$	4 $\frac{3}{8}$	1.35	1 $\frac{1}{4}$ or 1 $\frac{1}{2}$	6 $\frac{1}{2}$	2.90
1 $\frac{1}{2}$ or 1 $\frac{3}{4}$	5 $\frac{1}{8}$	1.65	1 $\frac{1}{2}$ or 1 $\frac{3}{4}$	7 $\frac{3}{4}$	3.25
1 $\frac{3}{4}$ or 2	5 $\frac{13}{16}$	2.10	1 $\frac{3}{4}$ or 2	8 $\frac{1}{4}$	3.75
2 $\frac{1}{8}$ or 2 $\frac{1}{4}$	6 $\frac{1}{2}$	2.40	2 $\frac{1}{8}$ or 2 $\frac{1}{4}$	9 $\frac{1}{2}$	4.40
2 $\frac{1}{4}$ or 2 $\frac{1}{2}$	7 $\frac{3}{8}$	2.85	2 $\frac{1}{4}$ or 2 $\frac{1}{2}$	10 $\frac{1}{4}$	5.00
2 $\frac{1}{2}$ or 2 $\frac{3}{4}$	8 $\frac{1}{16}$	3.60	2 $\frac{1}{2}$ or 2 $\frac{3}{4}$	11 $\frac{1}{4}$	5.75
2 $\frac{3}{4}$ or 3	8 $\frac{13}{16}$	4.50	2 $\frac{3}{4}$ or 3	12	6.50

RIGID PILLOW BLOCKS

Light Pattern

With Split and Babbitted Bearings

Plain Oiling

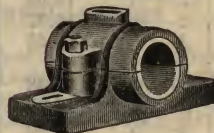


Fig. T124

SIZES AND NET PRICES

Size Shaft, Inches	Net Price Each	Size Shaft, Inches	Net Price Each	Size Shaft, Inches	Net Price Each
1 $\frac{1}{16}$	\$0.55	1 $\frac{1}{8}$	\$0.90	1 $\frac{1}{2}$	\$1.60
1	.55	1 $\frac{1}{4}$	.90	1 $\frac{3}{4}$	1.60
1 $\frac{1}{8}$	.65	1 $\frac{1}{2}$	1.20	2	2.10
1 $\frac{1}{4}$	.65	1 $\frac{3}{4}$	1.20	2 $\frac{1}{8}$	2.10
1 $\frac{1}{2}$	.90	2	1.20	2 $\frac{1}{4}$	2.40

BALL BEARING DROP HANGERS

SKAYEF—IMPROVED—SELF-ALIGNING



Fig. T149

Are self-aligning, the shaft can be deflected without binding the bearings. The outer race is spherical, permitting the inner race with the balls and retainer to revolve without any binding strains whatever.

The heavy casing which surrounds the bearing is held rigidly at each end by lock nuts. These nuts and two set screws allow accurate, vertical and horizontal adjustment, without any possibility of pressure being transmitted to the bearing. The casing is split which enables the millwright to lay the shaft out on the floor with the bearings in plain sight. The assembly can then be raised in place and final set up made accurately. Bearing position, condition of parts and oil level can be inspected quickly.

STANDARD TYPE

Shaft Size Inches	Dimensions, Inches					Bolts Required No. ins.	Net Price Each
	Drop A	B	C	E	L		
1 3/8	6—8	14 1/2	3 5/8	11	3 1/8	2— 5/8	\$ 9.44
	9—11	15 3/4	3 7/8	12 1/4	3 9/16	2— 5/8	9.73
1 7/8	6—8	16	3 1/2	12	3 7/8	2— 5/8	11.90
	9—11	17 1/4	3 3/4	13 1/4	3 7/8	2— 5/8	12.24
	12—14	18 1/2	4	14 1/2	3 7/8	2— 5/8	12.37
	15—17	19 3/4	4 1/4	15 3/4	3 7/8	2— 5/8	12.79
	15—17	19 3/4	4 1/4	15 3/4	3 7/8	2— 5/8	12.79
1 11/16	6—8	16	3 1/2	12	4 5/16	2— 5/8	12.58
	9—11	17 1/4	3 3/4	13 1/4	4 5/16	2— 5/8	12.92
	12—14	18 1/2	4	14 1/2	4 5/16	2— 5/8	13.05
	15—17	19 3/4	4 1/4	15 3/4	4 5/16	2— 5/8	13.47
1 5/8	6—8	17 1/4	4	13 1/4	4 1/4	2— 3/4	14.49
	9—11	18 1/2	4 1/4	14 1/2	4 1/4	2— 3/4	14.92
	12—14	19 3/4	4 1/2	15 3/4	4 1/4	2— 3/4	15.09
	15—17	21	4 3/4	17	4 1/4	2— 3/4	15.47
	18—20	22 1/4	5	18 1/4	4 1/4	2— 3/4	16.45
2 3/8	6—8	19 7/8	4 3/8	15 1/8	4 7/8	2— 3/4	17.98
	9—11	20 1/2	4 3/4	15 3/4	4 7/8	2— 3/4	18.32
	12—14	21 3/4	5	17	4 7/8	2— 3/4	18.40
	15—17	23	5 1/4	18 1/4	4 7/8	2— 3/4	19.04
	18—20	24 1/4	5 1/2	19 1/2	4 7/8	2— 3/4	20.36
2 7/8	6—8	19 7/8	4 3/8	15 1/8	4 7/8	2— 3/4	21.12
	9—11	20 1/2	4 3/4	15 3/4	4 7/8	2— 3/4	21.46
	12—14	21 3/4	5	17	4 7/8	2— 3/4	21.55
	15—17	23	5 1/4	18 1/4	4 7/8	2— 3/4	22.19
	18—20	24 1/4	5 1/2	19 1/2	4 7/8	2— 3/4	23.50
2 5/8	9—11	23 1/2	5	17 3/4	5 3/8	2—1	28.99
	12—14	24 3/4	5 1/4	19	5 3/8	2—1	30.01
	15—17	26	5 1/2	20 1/4	5 3/8	2—1	31.15

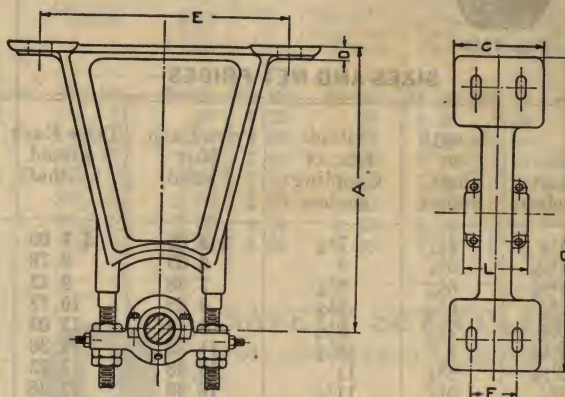


Fig. T150

Practical tests in various manufacturing plants have proven that transmission loss, due to friction in ordinary line shaft bearings, is a very large percentage of total power consumed in plant. With Skayef self-aligning ball-bearings hangers most of these losses will be eliminated, which means that the extra cost of self-aligning ball-bearings over ordinary bearings will be met by this saving in power within 18 months to 2 years.

Ball-bearings require a very small amount of lubricant and need attention only once or twice a year. They are clean, because felt washers in housings keep oil from dripping out. Leakage is prevented, saves from sixty to eighty per cent of expenditure required for lubricant with ordinary babbitt bearings.

HEAVY DUTY

Shaft Size Inches	Dimensions, Inches					Bolts Required No. Ins.	Net Price Each
	Drop A	B	C	E	L		
1 5/8	6—8	19 7/8	4 3/8	15 1/8	5 1/8	2— 3/4	\$19.76
	9—11	20 1/2	4 3/4	15 3/4	5 1/8	2— 3/4	20.10
	12—14	21 3/4	5	17	5 1/8	2— 3/4	20.19
	15—17	23	5 1/4	18 1/4	5 1/8	2— 3/4	20.83
	18—20	24 1/4	5 1/2	19 1/2	5 1/8	2— 3/4	22.14
2 3/8	9—11	23 1/2	5	17 3/4	5 1/8	2—1	26.65
	12—14	24 3/4	5 1/4	19	5 1/8	2—1	27.67
	15—17	26	5 1/2	20 1/4	5 1/8	2—1	28.82
2 7/8	9—11	24	7	18 1/2	6 1/2	4— 7/8	36.34
	12—14	25 1/4	7 1/4	19 3/4	6 1/2	4— 7/8	37.83
	15—17	26 1/2	7 1/2	21	6 1/2	4— 7/8	39.31
	18—20	27 3/4	7 3/8	22 1/4	6 1/2	4— 7/8	41.18
2 5/8	12—14	26 3/4	7 1/4	21 1/2	7 1/8	4— 7/8	50.79
	15—17	28	7 1/2	22 3/4	7 1/8	4— 7/8	52.79
	18—20	29 1/4	7 3/4	24	7 1/8	4— 7/8	54.53

MAINTENANCE COSTS PRACTICALLY NEGLECTIBLE

Shafting will last indefinitely because there is no wear on the shaft and it cannot be scored. Inner race of bearing is fastened to shaft and rotates with it. The housing contains a large lubricant chamber which holds sufficient lubricant for months of operation. Lubricant can be applied during an idle period, thereby entirely eliminating risk of catching oiler in fast running belt and endangering his life. Overhead charges for maintenance of self-aligning ball-bearings as compared with babbitt bearings can be reduced to a percentage so low as to be practically negligible.

BALL BEARING PILLOW BLOCKS

RIGID SPLIT

SKAYEF—IMPROVED—SELF-ALIGNING

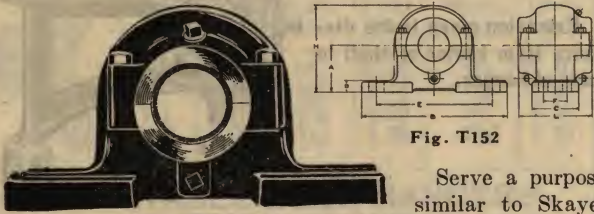


Fig. T151

Serve a purpose similar to Skayef drop and post

hangers, but for different applications. Differs in principle in that they provide primarily for adjustment in a horizontal plane only, although vertical adjustments may be obtained by means of special adjustable base plates.

Bearing housing is split horizontally so as to permit of ready erection of shafting and to render easy inspection of bearings and replacement of felts.

Solid type pillow blocks with same general dimensions as split type are also available. Prices quoted on request.

Normal Duty

Shaft Size, Inches	Dimensions, Inches						Bolts Required No. In.	Net Each Complete
	A	B	C	E	H	L		
1 5/16	1 3/4	7	2	5 1/4	3 1/16	3 1/2	2-1 1/2	\$ 7.95
1 3/8	2	7 3/4	2 1/4	6	3 1/16	3 1/16	2-1 1/2	8.63
1 7/16	2 1/4	8 1/4	2 1/2	6 1/2	4 3/8	3 7/8	2-1 1/2	10.67
1 11/16	2 1/2	8 1/2	2 3/4	6 3/4	4 11/16	4 5/8	2-1 1/2	11.56
1 15/16	2 3/4	10	2 3/4	7 3/4	5 1/8	4 1/4	2-5/8	13.60
2 3/16	3	11	3 1/4	8 3/4	5 7/8	4 7/8	2-5/8	16.49
2 7/16	3 1/4	11 1/4	3 1/2	9	6 3/16	4 7/8	2-5/8	19.81
2 11/16	3 1/2	12 3/4	3 1/2	10	6 13/16	5 1/8	2-3/4	22.74
2 15/16	3 3/4	13 3/4	3 3/4	10 1/2	7 1/4	5 3/8	2-3/4	26.73

Heavy Duty

Shaft Size, Inches	Dimensions, Inches						Bolts Required No. In.	Net Each Complete
	A	B	C	E	H	L		
1 5/16	2	7 3/4	2 1/4	6	3 13/16	3 11/16	2-1 1/2	\$9.18
1 3/8	2 1/4	8 1/4	2 1/2	6 1/2	4 1/4	3 7/8	2-1 1/2	11.05
1 7/16	2 3/4	10	2 3/4	7 3/4	5 3/16	4 1/2	2-5/8	13.90
1 11/16	3	10 1/2	3	8 1/4	5 5/8	4 3/4	2-5/8	17.13
1 15/16	3 1/4	11	3 1/4	8 3/4	6 1/8	5 1/8	2-5/8	18.87
2 3/16	3 1/2	12 3/4	3 1/2	10	6 13/16	5 1/8	2-3/4	24.40
2 7/16	4	13 3/4	4	11	7 13/16	6 1/2	2-3/4	32.17
2 11/16	4 1/4	14 3/4	4 1/4	11 3/4	8 1/4	6 1/2	2-7/8	36.72
2 15/16	4 1/2	15 1/4	4 1/2	12 1/4	8 3/4	7 1/8	2-7/8	41.82
3 3/16	4 3/4	15 1/2	4 3/4	12 1/2	9 3/16	7 1/4	4-3/4	51.60
3 7/16	5 1/4	17 1/2	5 1/4	13 3/4	10 3/8	7 3/4	4-3/4	68.04
3 11/16	5 1/2	18 1/2	5 3/4	15	10 11/16	8	4-7/8	80.37
3 15/16	6	19 1/2	6	16	11 1/2	8 3/8	4-7/8	89.93

BALL BEARING POST HANGERS

SKAYEF—IMPROVED—SELF-ALIGNING

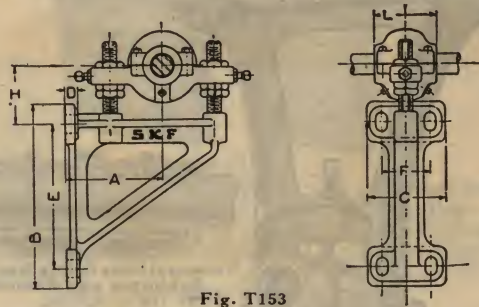


Fig. T153

The frame of the Skayef ball-bearing post hanger, like that of the drop hanger, is of "T" shaped cross section, designed to afford maximum strength with a minimum amount of material. The four holes in the base are arranged in such manner that the post hangers can be fastened to the flange of a conventional "I" section column. Two threaded vertical rods, anchored substantially into the frame during the process of casting, in the same manner as employed in anchoring the suspension rods of drop hangers, take the housing yoke and provide for approximately two inches of vertical adjustment of the bearing.

Elongated holes in the housing yoke receive these vertical supporting rods and provide for lateral adjustment of the bearing. The bearing housing is split and, since it is carried above the cast frame, there is nothing to interfere with the removal of the upper half of the housing for inspection of the bearing and lubricant, and for replacing the felt housing seals.

Normal Duty

Shaft Size, Inches	Dimensions, Inches						Bolts Required No. In.	Net Each
	A	B	C	E	F	L		
1 5/16	6 1/2	12	5 1/4	9 1/2	3 1/4	3 1/2	4-5/8	\$9.27
1 3/8	6 1/2	12	5 1/4	9 1/2	3 1/4	3 11/16	4-5/8	9.95
1 7/16	6 3/4	13	5 1/4	10 1/4	3 1/4	3 7/8	4-5/8	12.58
1 11/16	6 3/4	13	5 1/4	10 1/4	3 1/4	4 1/8	4-5/8	13.26
1 15/16	7 1/2	14	6	11	3 3/4	4 1/4	4-3/4	15.39
2 3/16	8 1/4	16	6 3/4	13	4 1/4	4 7/8	4-3/4	18.79
2 7/16	8 3/4	16	6 3/4	13	4 1/4	4 7/8	4-3/4	21.93
2 11/16	9 1/4	17 3/4	7 1/4	14 1/2	4 1/2	5 1/8	4-1	26.65
2 15/16	9 3/4	17 3/4	7 1/4	14 1/2	4 1/2	5 3/8	4-1	30.35

Heavy Duty

Shaft Size, Inches	Dimensions, Inches						Bolts Required No. In.	Net Each
	A	B	C	E	F	L		
1 5/16	8 3/4	16	6 3/4	13	4 1/4	5 1/8	4-3/4	\$20.57
2 3/16	9 3/4	17 3/4	7 1/4	14 1/2	4 1/2	5 1/8	4-1	28.01
2 7/16	10 1/4	19	8	15 1/4	5	6 1/2	4-1	37.10
2 11/16	10 1/4	19	8	15 1/4	5	6 1/2	4-1	40.67
2 15/16	11 1/4	20 1/2	8 3/4	16 1/2	5 1/2	7 1/8	4-1	50.83

BALL BEARING HANGER BEARINGS

SKAYEF—REPLACE BOX

For replacing bearings in hanger frames where it is impractical to remove existing hangers.

Bearing box, with its two Hess-Bright ball bearings fits regular hanger frames of corresponding size.

It is securely clamped to shaft by means of taper adapter sleeves and lock nuts. Will take care of shaft contraction and expansion, requires no bearing adjustment and possesses the maximum in flexibility, but is not self-aligning.

Sizes, Dimensions and Net Prices

Shaft Size Inches	A Inches	B Inches	C Inches	Between Hanger Screws, inches		Net Price Each
				Height	Width	
1 7/16	8 5/16	2 7/8	3 1/16	3 5/16	2 7/16	\$10.50
1 11/16	8 3/4	3	4 3/16	3 1/2	2 7/8	12.11
1 15/16	8 7/8	3	4 5/8	3 3/4	3 1/8	15.68
2 3/16	9 5/8	3 1/2	5 1/8	4 1/4	3 1/2	17.98
2 7/16	9 3/4	3 1/2	5 3/4	4 5/8	3 3/4	20.78
2 11/16	10 1/2	4	5 5/8	5 1/8	4	24.23
2 15/16	10 3/8	4	6 3/16	5 1/2	4 1/2	30.69



Fig. T154

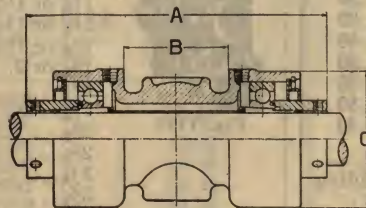


Fig. T155

ADJUSTABLE DROP HANGERS

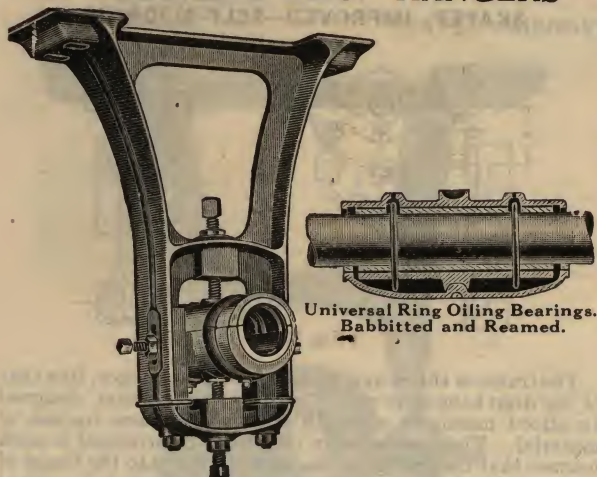


Fig. T125

Double Brace, Heavy Duty Hangers, Fitted with Either Ring Oiling or Plain Bearings

Ring Oiling Drop Hangers SIZES AND NET PRICES

Size of Shaft, Ins.	Net Price, 6 to 8 Inches Drop	Net Price, 8 to 10 Inches Drop	Net Price, 10 to 12 Inches Drop	Net Price, 14 to 16 Inches Drop	Net Price, 18 to 20 Inches Drop	Net Price, 22 to 24 Inches Drop
$1\frac{5}{16}$	\$2.11	\$2.26	\$2.42	\$2.89	\$3.21	\$3.84
$1\frac{3}{8}$	2.74	2.89	3.05	3.52	4.00	4.63
$1\frac{1}{2}$	3.05	3.21	3.37	3.84	4.31	4.94
$1\frac{3}{4}$	3.68	3.84	4.00	4.47	4.78	5.26
$1\frac{15}{16}$	4.26	4.42	4.58	5.05	5.36	5.84
$2\frac{3}{16}$	5.36	5.68	5.84	6.47	6.94	7.57
$2\frac{1}{2}$	5.99	6.31	6.47	7.10	7.57	8.20
$2\frac{11}{16}$	6.90	.....	8.10	9.00	10.20	11.10
$2\frac{15}{16}$	8.10	.....	9.30	10.20	11.40	12.30
$3\frac{3}{16}$	.....	.....	12.00	13.50	15.00	15.90
$3\frac{1}{2}$	.....	.....	13.20	14.70	16.20	17.10
$3\frac{11}{16}$	.....	.....	15.60	17.10	18.90	20.10
$3\frac{15}{16}$	.....	.....	16.80	18.30	20.10	21.30

Plain Oiling Drop Hangers SIZES AND NET PRICES

Size of Shaft, Ins.	Net Price, 6 to 8 Inches Drop	Net Price, 8 to 10 Inches Drop	Net Price, 10 to 12 Inches Drop	Net Price, 14 to 16 Inches Drop	Net Price, 18 to 20 Inches Drop	Net Price, 22 to 24 Inches Drop
$1\frac{5}{16}$	\$1.79	\$1.95	\$2.10	\$2.60	\$2.95	.....
$1\frac{3}{8}$	1.95	2.10	2.30	2.80	3.75	\$4.40
$1\frac{1}{2}$	2.44	2.60	2.80	3.25	4.25	4.90
$1\frac{3}{4}$	3.08	3.25	3.50	3.90	4.40	5.00
$1\frac{15}{16}$	3.40	3.60	3.85	4.25	4.75	5.40
$2\frac{3}{16}$	5.00	5.40	5.55	6.15	6.75	7.30
$2\frac{1}{2}$	5.55	5.90	6.10	6.75	7.15	7.85
$2\frac{11}{16}$	6.30	6.90	7.50	8.40	9.60	10.50
$2\frac{15}{16}$	7.20	7.80	8.40	9.30	10.50	11.40

Be sure to mention whether Ring Oiling or Plain Oiling Bearings are desired.

We can furnish other sizes than listed—write for prices.

EXTENSION BRACKET HANGERS

Extension given is the distance from center of shaft to base of hanger.

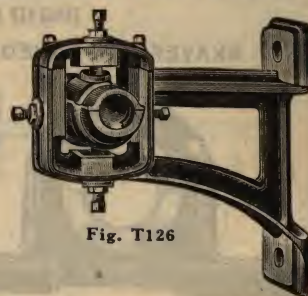


Fig. T126

BRACKET HANGERS

Shaft Size, Inches	Extension, Inches	Net Price, Ring Oiling	Shaft Size, Inches	Extension, Inches	Net Price, Ring Oiling
$1\frac{3}{8}$	10	\$3.00	$1\frac{5}{8}$	14	\$5.25
	12	3.30		16	5.70
	14	3.60		18	6.15
	16	3.90	$2\frac{3}{8}$	10	5.70
$1\frac{1}{2}$	10	3.30		12	6.15
	12	3.60		14	6.90
	14	3.90		16	7.80
	16	4.20	$2\frac{1}{2}$	10	6.30
$1\frac{3}{4}$	10	3.90		12	6.75
	12	4.20		14	7.50
	14	4.65		16	8.40
	16	5.10	$2\frac{11}{16}$	10	8.40
	18	5.55		12	9.00
$1\frac{5}{8}$	10	4.50		14	9.90
	12	4.80		16	10.80

ADJUSTABLE PILLOW BLOCKS SIZES AND NET PRICES

Shaft Size—Inches	Net Price Ring Oiling	Net Price Plain Oiling
$\frac{5}{8}$ or 1.....	\$2.28	\$1.79
$1\frac{3}{8}$ or $1\frac{1}{4}$	2.93	1.95
$1\frac{1}{2}$ or $1\frac{1}{2}$	3.25	2.44
$1\frac{3}{4}$ or $1\frac{3}{4}$	3.90	3.09
$1\frac{15}{16}$ or 2.....	4.55	3.41
$2\frac{3}{16}$	5.69	5.01
$2\frac{1}{2}$	6.34	5.59
$2\frac{5}{8}$	7.48	6.30
$2\frac{11}{16}$	8.78	7.20
$3\frac{1}{8}$	13.65	.....
$3\frac{1}{2}$	18.53	.....
$4\frac{1}{8}$	25.35	.....



Fig. T127

ADJUSTABLE POST HANGERS SIZES AND NET PRICES

Shaft Size—Inches	Net Price Ring Oiling	Net Price Plain Oiling
$1\frac{5}{16}$ or 1.....	\$2.44	\$1.95
$1\frac{3}{8}$ or $1\frac{1}{4}$	3.09	2.11
$1\frac{1}{2}$ or $1\frac{1}{2}$	3.41	2.60
$1\frac{3}{4}$ or $1\frac{3}{4}$	3.90	3.25
$1\frac{15}{16}$ or 2.....	4.55	3.58
$2\frac{3}{16}$	6.01	5.33
$2\frac{1}{2}$	6.66	5.92
$2\frac{5}{8}$	8.78	7.50
$2\frac{11}{16}$	10.08	8.40
$3\frac{1}{8}$	14.30	.....
$3\frac{1}{2}$	21.78	.....
$4\frac{1}{8}$	29.90	.....



Fig. T128

ANGLE CLAMP BOXES

With Split Babbitted Bearing Plain Oiling

SIZES AND NET PRICES



Fig. T129

Size Shaft, Inches	Net Price Each	Size Shaft, Inches	Net Price Each	Size Shaft, Inches	Net Price Each
$\frac{5}{16}$	\$0.85	$1\frac{1}{4}$	\$1.05	$1\frac{5}{8}$	\$1.40
1	.90	$1\frac{3}{8}$	1.15	$1\frac{11}{16}$	1.50
$1\frac{1}{8}$	.95	$1\frac{7}{8}$	1.20	$1\frac{3}{4}$	1.65
$1\frac{3}{8}$	1.00	$1\frac{1}{2}$	1.25	$1\frac{15}{16}$	1.90

ADJUSTABLE POST HANGERS

Adjustable, with plain oiling bearings. Used for Reels, Line-Shafts, Counter-Shafts, Etc.

SIZES AND NET PRICES

Size Shaft Inches	Net Price Each	Size Shaft Inches	Net Price Each
$\frac{5}{16}$	\$2.20	$1\frac{7}{16}$	\$3.03
1	2.31	$1\frac{1}{2}$	3.30
$1\frac{1}{8}$	2.42	$1\frac{11}{16}$	3.58
$1\frac{3}{8}$	2.53	$1\frac{3}{4}$	3.85
$1\frac{1}{4}$	2.64	$1\frac{7}{8}$	4.13
$1\frac{3}{8}$	2.75	$1\frac{15}{16}$	4.40

Distance from wall to center on shaft of all sizes is 6 inches.

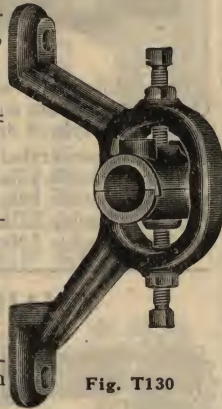


Fig. T130



Fig. T131

RIGID POST HANGERS

For Light Work on Short Shafts, Wick and Ring Oiling

Unless otherwise ordered, Wick-oiling Boxes will be sent. Intermediate sizes furnished at next higher price.

SIZES AND NET PRICES

Size Shaft Inches	Net Price Each Wick Oiling	Net Price Each Ring Oiling	Size Shaft Inches	Net Price Each Wick Oiling	Net Price Each Ring Oiling
$1\frac{3}{16}$	\$2.10	\$2.52	$2\frac{1}{4}$	\$5.10	\$8.19
$1\frac{7}{16}$	2.22	3.15	$2\frac{5}{16}$	6.09	9.45
$1\frac{11}{16}$	2.40	3.62	$3\frac{1}{16}$	6.90	11.66
$1\frac{15}{16}$	3.06	4.25	$3\frac{1}{8}$	9.36	13.86
$2\frac{3}{16}$	3.69	5.36	$3\frac{1}{2}$	11.82	16.70
$2\frac{7}{16}$	4.20	6.30	$3\frac{5}{8}$	14.28	19.85

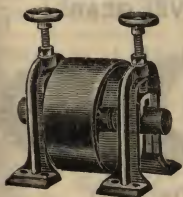


Fig. T132

ADJUSTABLE BELT IDLERS

Can be attached to ceiling or floor, or used in any position.

Bearings are adjustable, vertically, for 5 inches.

Made of cast iron throughout, with a machine-molded, machine-turned, balanced cast iron pulley.

SIZES AND NET PRICES

No.	Size of Pulley	Net Price
7.....	10x4	\$16.95
8.....	10x5	17.25
9.....	10x6	17.65
10.....	12x6	18.25
11.....	12x7	18.70
12.....	12x8	20.00

HARD MAPLE GEAR COGS

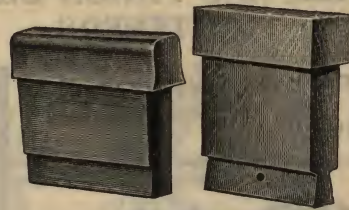


Fig. T133

Made from Selected Winter sawed and loft-dried under cover, Wisconsin Hard or Rock maple. Will outlast any other material. Send old cog taken from largest slot for pattern, or a carefully made pattern. Do not send diagrams or measurements.

SIZES AND NET PRICES EACH

(For 25 Cogs or More of a Size)

For Thickness up to $1\frac{7}{8}$ in.			For Thickness 2 to 3 in.		Key	
Wood Face	Fin. Tooth	Sq. Tooth	Fin. Tooth	Sq. Tooth	Length	Price Each
4	\$0.28	\$0.22	\$0.35	\$0.30	6"	\$0.06
5	.31	.24	.35	.30	8"	.08
6	.35	.26	.39	.35	12"	.12
7	.39	.30	.46	.40	14"	.14
8	.44	.35	.48	.44	16"	.16
9	.55	.44	.57	.52	16"	.16
10	.68	.55	.72	.68	18"	.20
11	.85	.66	.85	.80	20"	.24
12	.88	.79	1.00	.95	22"	.32

Less than 25 cogs of a size include a machine set up charge of \$3.00.

These prices are approximate. The exact charge depends on character of cog.

ADJUSTABLE BELT IDLER

This Idler is adjustable either up, down or at any angle. Can be used above or below the floor. The bearings are self-aligning. For upright Bran Dusters, Cleaners, Roller Mills, etc., this Idler can't be beat. Furnished with 8x6 in. Iron Pulley. The frame is made entirely of cast iron. Net Price complete with Pulley, each.....\$15.00

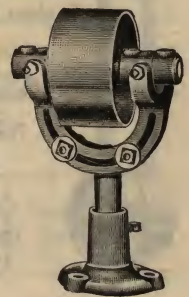


Fig. 1134

BELT IDLERS

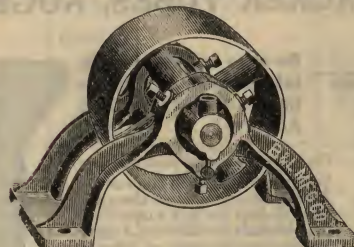


Fig. T135

This Idler may be attached to the ceiling and used as a hanging jack or placed on the floor, the bearings being reversible.

Made of cast iron throughout, machined and neatly assembled.

SIZES AND NET PRICES

No.	Size of Pulley	Net Price
1.....	10x 4	\$12.00
2.....	10x 5	13.00
3.....	12x 6	14.00
4.....	12x 7	15.00
5.....	14x 8	16.00
6.....	16x10	18.00

RACK AND PINION BELT TIGHTENERS

Operated Either Vertically or Horizontally.
Furnished with cast iron guides and balanced pulley.
Rigid plain oiling bearings.

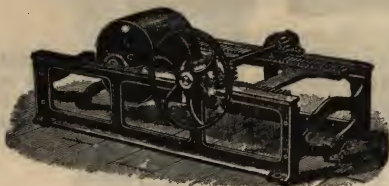


Fig. T136
Iron Frame Belt Tightener



Fig. T137
Belt Tightener
Vertical or
Horizontal, for
Wood Frame

DIMENSIONS AND NET PRICES

No.	Length of Adjustment, Feet	Size of Pulley, Inches	Diam. of Shaft	Net Price For Wood Frame	Net Price With Iron Frame
00	1½	12x 9	1¼	\$ 30.00	\$ 37.50
0	1⅔	18x12	1½	40.00	50.00
1	2	24x14	1⅝	56.00	70.00
2	3½	28x20	2⅜	82.00	100.00
3	4	30x26	2½	120.00	160.00

SWINGING BELT TIGHTENER



Fig. T138

Sizes of Pulleys given are Standard, but may be varied to meet special requirements. Larger sizes furnished. Prices on application.

SIZES AND NET PRICES

No.	Swing Feet	Size Pulley, Inches	Price Each
1	3	12x 8	\$35.00
2	3	12x10	40.85
3	4	20x14	44.00
4	4	24x16	52.50

IDLERS FOR ROUND BELTS

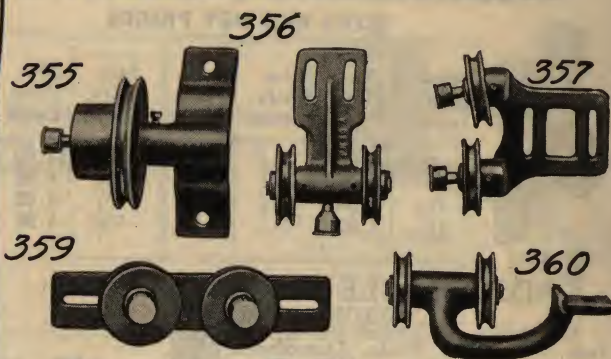


Fig. T139

These Idlers are supplied for ¾ inch round belts only. The mountings are such that selection can usually be made to suit any style of drive.

No. 355—Countershaft, net each.....	\$10.00
No. 356—Double Idler, net each.....	8.00
No. 357—Double Idler, net each.....	8.00
No. 359—Double Idler, net each.....	8.00
No. 360—Double Idler, net each.....	8.00

CHAIN TIGHTENERS

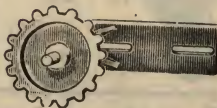


Fig. T140

For Wall or Post

Has slotted holes to allow considerable adjustment without changing position of bolts.

SIZES AND NET PRICES

For No. 25 to 55 chain, incl., each.....	\$4.50
For No. 57 to 88 chain, incl., each.....	6.25
For No. 95 to 103 chain, incl., each.....	9.00

FLANGE TIGHTENERS

For Wall or Post

The same construction as tightener above, except it is furnished with flange wheel instead of a sprocket.



Fig. T141

SIZES AND NET PRICES

For No. 25 to 55 chain, incl., each.....	\$4.25
For No. 57 to 88 chain, incl., each.....	6.00
For No. 95 to 103 chain, incl., each.....	8.75

PACKER TUBES, AUGERS AND PACKER GEARS

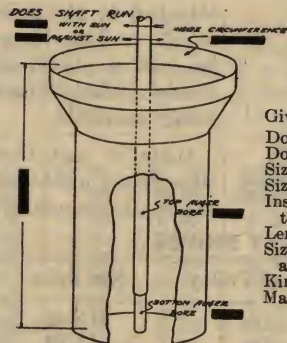


Fig. RB124

Be sure to give us this information in ordering Packer Tubes and Augers.

Give the following information:
Does shaft run with the sun?
Does shaft run against the sun?
Size of shaft for top Auger.
Size of shaft for bottom Auger.
Inside circumference of tube at top ring.
Length of tube over all.
Size of bag laid flat, viz.: length and width.
Kind of material to be packed.
Make of Packer.



Fig. RB125

PACKER TUBES

Net Each

All sizes for Flour or Bran Packers.	\$ 8.40
Enclosing Cases for 100 and 200 lb. Bran Sacks.....	29.75

PACKER AUGERS



Fig. RB126

For Flour Packers

Each	
1 bbl., net....	\$6.00
½ bbl., net....	5.40
¼ bbl., net....	4.80
⅛ bbl., net....	4.20
Knives.....	2.40

For Bran Packers

100 lb. Sacks....	\$8.75
200 lb. Sacks....	9.50

BEVEL GEARS



Fig. RB127

For Drop Gear, Silver Creek, Eureka, Allis, Invincible and Monarch Flour Packers. Gear—31 cogs; Pinion—23 cogs.

Price, per pair, net...\$15.00

ADJUSTABLE TAKE-UP BOXES

For use where it is necessary to take up slack in belts. Made to pull and push.

In ordering, give diameter of shaft and style of take-up.

The number of frame indicates length of movement in inches.

SIZES AND NET PRICES



Fig. T142
Style "A"

No. Frame	Diam. Shaft	Length Bearing	Net Price Each Style "A" or "B"
4	1 5/16	2	\$3.50
6	1 3/8	3	3.75
8	1 1/2	4 1/2	4.75
8	1 5/8	4 1/2	5.50
9 1/2	1 5/8	5	6.75
9 1/2	2 3/8	5	7.25
13	2 1/4	5 1/2	9.00
29	2 5/8	6	13.50
20	2 5/8	6 1/2	14.75



Fig. T143
Style "B"

ADJUSTABLE TAKE-UP BOXES

Style "C"

For Wood or Iron Elevator Boots, especially designed to cover adjustment openings in boot, with Oil Pipe extension for lubricating the bearings.



Fig. T144

SIZES AND NET PRICES

1 7/8 inch, per pair, net. \$3.75 1 1/2 inch, per pair, net. \$4.25

LIGHT TAKE-UP BOXES

(3" Movement)

SIZES AND NET PRICES



Fig. T145

	Each
1 5/8 inch.....	\$2.00
1 inch.....	2.25
1 3/8 inch.....	2.50
1 1/4 inch.....	2.75
1 1/8 inch.....	3.00



Fig. T157

GUMP'S BEVEL REEL GEARS

For Cross Shaft Drives

SIZES AND NET PRICES

Pat-tern	Teeth	Pitch	Diam. Inches	Face Inches	Proportion	Price Each
35	112	3/8	20.38	1 1/4	7 to 1	\$14.00
16	16	3/8	2.87	1 1/4		2.40
D-30	82	3/4	19.58	1 1/2	5.4 to 1	13.40
D-31	15	3/4	3.58	1 1/2		2.25
V-95	60	3/4	14.33	1 3/4	3 to 1	9.30
V-96	20	3/4	4.78	1 3/4	3 to 1	3.00
25	47	7/8	13.10	2	2.46 to 1	8.40
26	19	7/8	5.29	2		3.10
V-110	66	1	21.02	2 1/4	3 to 1	12.30
V-112	22	1	7.01	2 1/4		4.10



Fig. T146

GEARS OF ALL KINDS

We can furnish either iron or mortise Spur, Bevel or Mitre Gears.

Price on application.

INTERNAL SPUR GEARS

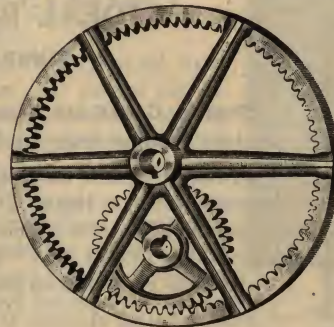


Fig. T147

These gears are used to reduce the speed on elevator line shafts, when elevator line and driving shaft run in the same direction.

Shop No.	No. of Teeth	Face	Pitch	Pitch Line Diam.	Proportion	Net Price
1	60 20	2 1/8" 2 1/8"	1 " 1 "	19.20" 6.40"	3 to 1	\$14.05
2	78 33	2 1/4" 2 1/4"	1 1/8" 1 1/8"	28.08" 11.88"	2.36 to 1	25.75
3	83 36	2 1/2" 2 1/2"	1 1/4" 1 1/4"	33.20" 14.40"	2.31 to 1	35.10
3A	83 26	2 1/2" 2 1/2"	1 1/4" 1 1/4"	33.20" 10.37"	3.19 to 1	34.50
3B	83 13	2 1/2" 2 1/2"	1 1/4" 1 1/4"	33.20" 5.22"	6.38 to 1	31.20
4	83 23	3 1/4" 3 1/4"	1 3/8" 1 3/8"	37.72" 10.12"	3.61 to 1	46.80
4A	83 21	3 1/4" 3 1/4"	1 3/8" 1 3/8"	37.72" 9.50"	3.95 to 1	46.00
5	86 21	4 1/2" 4 1/2"	1 3/4" 1 3/4"	48.16" 11.76"	4.09 to 1	85.80

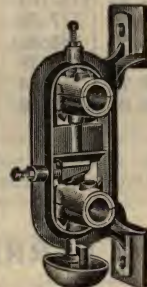


Fig. T148

DOUBLE SWIVEL POST BOXES

For use with Internal Spur Gears to properly center elevator head and driving counter shafts.

Size	Center to Center of Brgs.	No. Teeth Gears	Diam. of Gears	Size of Largest Shaft	Net Price	
					Plain Oiling	Ring Oiling
1	6 5/8"	60 20	19.20" 6.40"	2 1/8"	\$12.50	\$13.65
2	8 3/8"	78 33	28.08" 11.88"	2 1/8"	17.20	18.75
3	9 7/8"	83 36	33.20" 14.40"	2 1/8"	20.28	21.85
3A	11 1/8"	83 26	33.20" 10.37"	2 1/8"	20.28	21.85
3B	14"	83 13	33.20" 5.22"	2 1/8"	23.40	25.75
4	13 1/8"	83 23	37.72" 10.12"	2 1/8"	23.40	25.75
4A	13 3/8"	83 21	37.72" 9.50"	2 1/8"	23.40	25.75
5	18 1/4"	86 21	48.16" 11.76"	2 5/8"	31.20	34.30

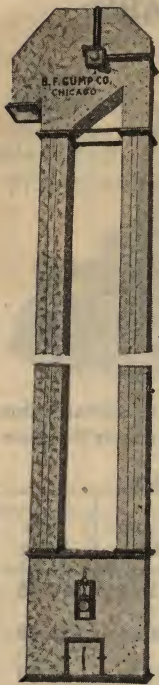


Fig. E100
Galv. Steel
Elevator

IDEAL BALL BEARING ELEVATORS

COMPLETE, EITHER STEEL OR WOOD

Shipped, Crated and Assembled Ready for Use in sizes up to and including 14 foot centers. Longer lengths, shipped in two sections ready for assembling.

Provided with a Clean-out door in boot, Inspection door in leg and a removable quarter-section in Head. Head and Boot pulleys both run in ball-bearings, which are carried in adjustable frames for adjustment up and down. Size drive pulley, 12x3 in. Speed 110 to 120 R.P.M. Head and Boot Pulleys, 8 inch diameter. Belt is 1/2 inch wider than cups used on various sizes. Capacity based on cups two-thirds full.

State whether elevator is for grain, coffee, spices, flour or powder, etc., when ordering.

SIZES AND CARRYING CAPACITIES

Numbers	73 or 173	74 or 174	75 or 175	76 or 176	77 or 177
Size Cups, inches	3x3	3 1/2 x3	4x3	4 1/2 x3	5x4
Grain, bu. per hr.	60	65	80	85	160
Flour, lbs. per hr.	2000	2500	3000	3500	6500

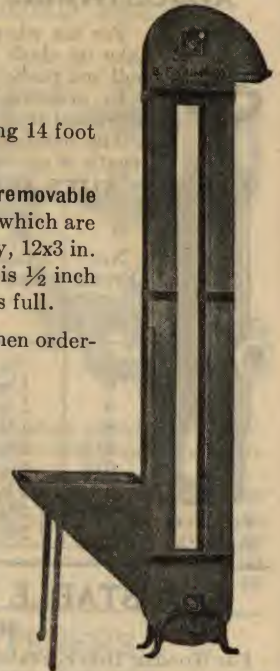


Fig. E101
Wood Elevator
Hopper Extra—See Below

SIZES AND NET PRICES

Steel Elevators, Galvanized						Wood Elevators—made of clear lumber, natural wood finish					
Number *Size Cups	173 3x3	174 3 1/2 x3	175 4x3	176 4 1/2 x3	177 5x4	Number *Size Cups	73 3x3	74 3 1/2 x3	75 4x3	76 4 1/2 x3	77 5x4
L, 8 ft.	\$126.79	\$132.54	\$138.29	\$144.04	\$167.04	A, 8 ft.	\$76.50	\$80.00	\$83.50	\$87.00	\$90.50
M, 10 ft.	132.54	138.29	144.04	149.79	177.39	B, 10 ft.	81.50	85.00	88.50	92.00	95.50
N, 12 ft.	138.29	144.04	149.79	155.54	188.85	C, 12 ft.	86.50	90.00	93.50	97.00	100.50
O, 14 ft.	147.49	153.24	158.99	164.74	200.39	D, 14 ft.	87.50	91.00	94.50	98.00	101.50
P, 16 ft.	158.99	164.74	170.49	176.24	217.64	E, 16 ft.	92.50	96.00	99.50	103.00	106.50
Q, 18 ft.	172.79	178.54	184.29	190.03	234.89	F, 18 ft.	97.50	101.00	104.50	108.00	111.50

*Sizes given are Center to Center of shafts.

Steel Feed Hoppers 24x24 inches, on legs, fitted with Screen and adjustable slide, each.....\$15.00

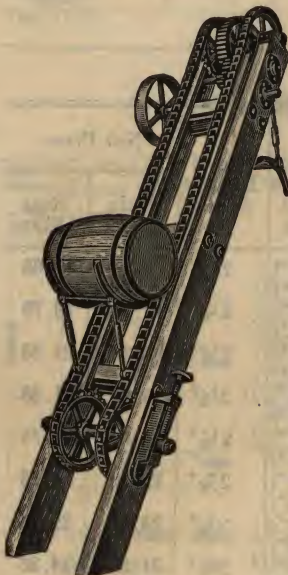


Fig. E102

BARREL AND SACK ELEVATOR

For elevating or lowering filled bags or barrels either vertically or inclined.

A standard elevator measures 14 feet between top and bottom shafts and consists of the following:

One speed shaft with collars, rosette bearings and a pair of tight and loose pulleys; one top shaft with collars, two special angle base bearings, two No. 78 sprocket wheels and a pair of cast spur gears to connect top shaft and speed shaft; one bottom shaft with collars, a pair of style "A" take-up bearings and two No. 78 sprocket wheels; one ratchet wheel with adjustable dog; two strands of No. 78 link belting and two pairs of 18-inch malleable curved carrying arms with cushion spring braces and lateral spacing pipes and rods with attachment links to suit.

Total Net Price (14 feet centers).....\$175.00

For each foot difference in height of elevator from standard, add or subtract..... 1.35

For each additional pair of carrying arms, add..... 10.00

The wood frame is to be supplied by purchaser according to installation blue print furnished with each elevator.

Drive pulley revolving at a speed of 36 R.P.M. gives a chain travel of 60 feet per minute.

For heights exceeding 35 feet, apply for price on a heavier type of elevator.

COMPLETE METAL ELEVATORS GALVANIZED

These elevators are made throughout of galvanized iron, with removable section legging, and for this reason can be erected at less expense than any other type of elevator. By the use of **floor stubs** at each floor the legs can be quickly assembled in place or as quickly removed exposing the belt and buckets from floor to ceiling.

Prices include material for elevators complete as illustrated, exclusive of head shaft and bearings, based on a height of 40 feet from center to center of head and boot pulleys. Shipped knocked down, and with belting punched for cups spaced 16 inches apart.



Fig. E128
Floor Stub, Two required
at each floor

SIZES AND NET PRICES

Elevator Number	Size Cups Width Projection	Width Belt, Inches	Size Head and Boot Pulley, Inches	Net Prices with 3-Ply Cotton Belt and Salem Cups attached, Style N	Add or deduct per foot for longer or shorter length	Net Prices with 4-Ply Cotton Belt and Salem Cups attached, Style O	Add or deduct per foot for longer or shorter length	Galvanized Floor Stubs
153	3 x3	3½	16x 4	\$ 93.00	\$1.29	\$ 95.80	\$1.35	\$1.00
154	3½x3	4	16x 4½	99.74	1.42	102.78	1.49	1.00
155	4 x3	4½	16x 5	104.59	1.50	107.90	1.58	1.20
156	3 x3	3½	18x 4	97.86	1.29	100.63	1.35	1.00
157	3½x3	4	18x 4½	104.17	1.42	107.22	1.49	1.00
158	4 x3	4½	18x 5	108.94	1.50	112.26	1.58	1.20
159	4½x3½	5	18x 5½	112.60	1.61	116.06	1.69	1.20
160	5 x4	5½	18x 6	119.58	1.76	123.30	1.85	1.20
161	6 x4	6½	18x 7	139.23	2.15	143.49	2.25	1.36
162	4 x3	4½	20x 5	112.53	1.50	115.87	1.58	1.20
163	4½x3½	5	20x 5½	117.61	1.61	121.09	1.69	1.20
164	5 x4	5½	20x 6	126.14	1.76	129.90	1.85	1.20
165	5½x4	6	20x 6½	136.81	1.96	141.10	2.06	1.20
166	6 x4	7	20x 7½	143.42	2.07	147.54	2.16	1.36
167	7 x4½	8	20x 8½	156.92	2.31	162.07	2.43	1.36
168	6 x4	7	24x 7½	160.61	2.07	164.77	2.16	1.36
169	7 x4½	8	24x 8½	171.86	2.31	177.07	2.43	1.36
170	8 x5	9	24x 9½	.....	.....	221.00	3.48	1.56
171	9 x5	10	24x10½	.....	.....	233.75	3.70	1.64

Elevators Nos. 153 to 167, inclusive, have heads and boots made of 20 gauge metal, larger sizes 18 gauge. Legging for 3x3 and 3½x3 cups is 24 gauge, for 4x3 to 5x4 cups 22 gauge, for 6x4 to 7x4½ cups 20 gauge and for larger sizes 18 gauge.

A discount of 5 per cent on orders for three to five of one size.

A discount of 10 per cent on orders for six or more of one size.



Fig. E127
Showing Elevator with
Two Sections Legging
Removed

HOWELL SPOUT HOLDER

For Flexible Telescope Car Loading Spouts

This device was designed and perfected to give to the grain trade a better and more satisfactory loading spout holder than had previously been available. How well it fills the bill is attested by hundreds of shippers throughout the country who have found it far superior in every way to any other spout holder they have ever used.

The Howell Flexible Spout Holder will give you better grades and less dockage, reduce the grief of car loading, and keep you out of the poisonous dust and dirt. It enables you to get a much more even distribution of the grain, without requiring continuous attention. It can be operated and the car completely loaded without entering the car at any time.

Size No. 1 is used for all spouts up to and including 8-inch diameter and No. 2 for 9 and 10-inch diameters and long heavy spouts.

The main stem is seamless wrought pipe, fitted with convenient grip for the operator. Furnished complete with adjustable band to fit spout of any diameter.

PRICES NET—F. O. B. Factory

No. 1\$16.50

No. 2\$21.50

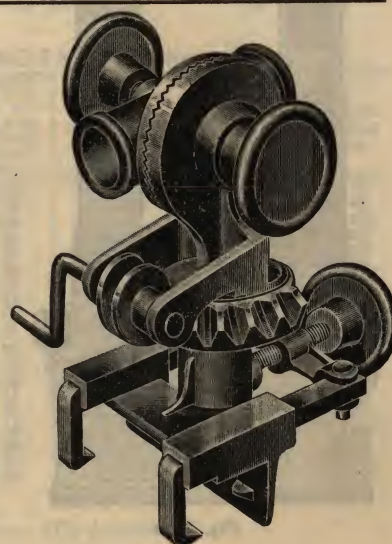


Fig. M168

COMPLETE WOOD ELEVATORS

Net Prices are based on complete elevators, 40 feet from center of head pulleys to center of boot shaft, with price per foot for longer or shorter lengths. Made of White Pine Lumber, surfaced on both sides.

Complete, Ready to Install (But Not Assembled)

Style "C" Head, and Style "A" Boot, including necessary legging.

Cotton Belting, three or four ply, with Salem Buckets attached (with bolts), ready to run. Buckets spaced 16 inches apart. Prices named below are based on an elevator 40 feet from center of head pulley to center of boot shaft.

To find the cost of an elevator of shorter or longer length, add or deduct price per foot (named below) from the price of the 40 foot elevator.

Prices do not include shaft in head pulley, head bearings or collars.

For Legging Completely Assembled, Add 20 Per Cent to Net Prices. For Elevator Completely Assembled and Fitted Add 50 Per Cent to Net Prices.

SIZES AND NET PRICES—LEGGING NOT ASSEMBLED

Elevator Number	Size Cups Width Projection	Width, Belt, Inches	Size Head and Boot Pulley, Inches	Net Prices, with 3-ply Cotton Belt and Salem Cups attached, Style M	Add or deduct per foot for longer or shorter length	Net Prices, with 4-ply Cotton Belt and Salem Cups attached, Style L	Add or deduct per foot for longer or shorter length
53	3 x3	3½	16x 4	\$ 97.13	\$1.49	\$100.82	\$1.60
54	3½x3	4	16x 4½	102.03	1.54	106.21	1.65
55	4 x3	4½	16x 5	107.42	1.65	111.49	1.71
56	3 x3	3½	18x 4	99.17	1.49	102.85	1.60
57	3½x3	4	18x 4½	104.39	1.54	108.46	1.65
58	4 x3	4½	18x 5	109.95	1.65	114.07	1.71
59	4½x3½	5	18x 5½	114.95	1.76	119.63	1.82
60	5 x4	5½	18x 6	121.50	1.87	126.45	1.93
61	6 x4	7	18x 7	136.90	2.09	143.88	2.20
62	4 x3	4½	20x 5	112.64	1.65	116.71	1.71
63	4½x3½	5	20x 5½	117.98	1.76	122.54	1.82
64	5 x4	5½	20x 6	125.84	1.87	130.68	1.93
65	5½x4	6	20x 6½	129.64	1.98	135.03	1.98
66	6 x4	7	20x 7½	140.53	2.09	147.51	2.20
67	7 x4½	8	20x 8½	159.50	2.48	167.37	2.53
68	6 x4	7	24x 7½	147.02	2.09	154.06	2.20
69	7 x4½	8	24x 8½	166.93	2.48	174.74	2.53
70	8 x5	9	24x 9½	.....	.....	192.39	2.86
71	9 x5	10	24x10½	.....	.....	211.48	3.08

Note—For three or more complete elevators of any one size, a discount of 5 per cent will be allowed. For six or more, 10 per cent discount.

Note—Prices on complete elevators do not include Head Shaft, Bearings, Collars or Pulley to Drive.

OTHER SIZES FURNISHED—PRICES ON APPLICATION

For Capacities of Elevators—See Page 103 on Elevator Heads

For Trunking Dimensions—See Page 104 on Elevator Legging

NET PRICES ON SHAFTING FOR ELEVATOR HEADS

Shaft Ins.	2½ ft. long	3 foot long	3½ foot long	4 foot long	4½ foot long	5 foot long	6 ft. and over per foot, net
1¼	\$1.10	\$1.35	\$1.55	\$1.80	\$2.00	\$2.25	\$0.41
1½	1.40	1.65	2.00	2.25	2.50	2.80	.51

Price per foot on shafts 6 feet long or over is for standard lengths only.

NET PRICES PER PAIR—RIGID HEAD BEARINGS AND SET COLLARS

Shaft Size Inches	Light Pillow Block Fig. T124	Length Bearing Inches	Heavy Pillow Block Fig. T123	Length Bearing Inches	Safety Set Collar	Space on Shaft Inches
1¼	\$2.40	5	\$3.30	5	\$0.70	1¼
1½	3.20	5½	4.20	5¾	.82	1½

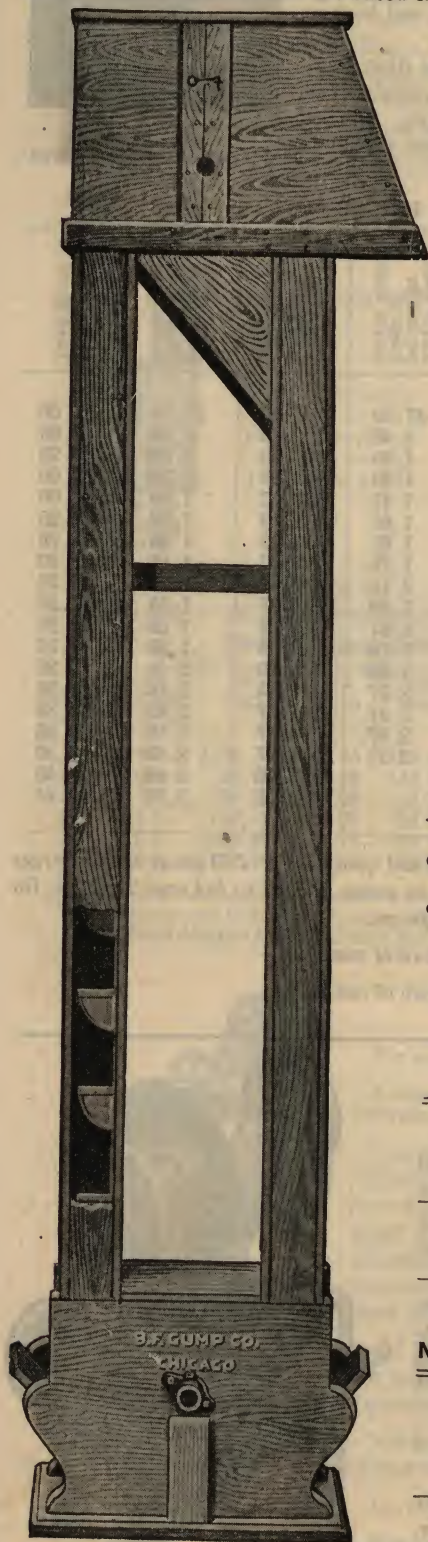


Fig. E103

WOOD ELEVATOR HEADS

Made of Dressed, Seasoned, White Pine Lumber

Design approved by the insurance underwriters. Made in three sections, the top half in two parts, which can be readily separated from the bottom section and the pulley changed without disturbing the legs and lower section.

In ordering elevator heads with pulleys, be sure to specify the size of shaft to be used and whether solid or split pulleys are wanted.

Prices quoted are for solid pulleys. Write for prices on split pulleys.

Prices stated do not include head shaft, bearings or collars.

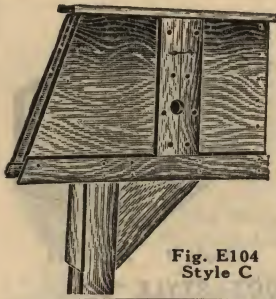


Fig. E104
Style C

SIZES, NET PRICES AND TABLE OF SPEEDS AND CAPACITIES

No.	Size of Cups Width Projection	Width of Belt	Size of Head Pulley	Rev. per Minute	Belt Speed in Feet per Minute	GRAIN Capacity per Hour Cups 16 ins. apart Cups $\frac{3}{4}$ full	FLOUR or MEAL Capacity per Hour Cups 16 ins. apart Cups $\frac{3}{4}$ full	Size of Dressed Lumber Used	Net Price Head Without Pulley	Net Price of Pulley Extra
1	3 x3	3½	16x 4	48	200	38 bu.	1312 lbs.	1	\$10.95	\$ 4.16
2	3½x3	4	16 x4½	48	200	45 bu.	1688 lbs.	1	11.39	4.40
3	4 x3	4½	16x 5	48	200	50 bu.	2062 lbs.	1	11.83	4.64
4	3 x3	3½	18 x4	44	207	40 bu.	1390 lbs.	1	11.39	4.68
5	3½x3	4	18x 4½	44	207	47 bu.	1790 lbs.	1	11.83	4.98
6	4 x3	4½	18x 5	44	207	53 bu.	2186 lbs.	1	12.33	5.28
7	4½x3½	5	18x 5½	44	207	84 bu.	3180 lbs.	1	12.78	5.60
8	5 x4	5½	18x 6	44	207	117 bu.	4373 lbs.	1	13.09	5.92
9	6 x4	6½	18x 7	44	207	142 bu.	4770 lbs.	1	14.23	7.64
10	4 x3	4½	20x 5	42	220	58 bu.	2270 lbs.	1	12.78	6.04
11	4½x3½	5	20x 5½	42	220	90 bu.	3317 lbs.	1	13.29	6.40
12	5 x4	5½	20x 6	42	220	124 bu.	4518 lbs.	1	14.23	6.80
12	5½x4	6	20x 6½	42	220	137 bu.	4744 lbs.	1	14.55	7.10
14	6 x4	7	20x 7½	42	220	150 bu.	4950 lbs.	1	14.86	7.40
15	7 x4½	8	20x 8½	42	220	258 bu.	7837 lbs.	1	15.18	10.05
16	6 x4	7	24x 7½	38	238	163 bu.	5644 lbs.	1	15.62	11.30
17	7 x4½	8	24x 8½	38	238	280 bu.	8943 lbs.	1	16.13	12.46
18	8 x5	9	24x 9½	38	238	395 bu.	12,236 lbs.	1	16.45	13.64
19	9 x5	10	24x10½	38	238	453 bu.	13,177 lbs.	1	17.08	15.46
20	9 x5	10	30x10½	38	298	463 bu.	.....	1½	36.69	19.28
21	11 x6	12	30x13	38	298	866 bu.	.....	1½	38.52	23.90
22	12 x6	13	30x14	38	298	947 bu.	.....	1½	48.39	25.52
23	11 x6	12	36x13	38	358	1134 bu.	.....	1½	48.39	30.52
24	12 x6	13	36x14	38	358	1284 bu.	.....	1½	49.34	32.56
25	14 x6	13	36x16	38	358	1438 bu.	.....	1½	51.87	36.68
26	12 x6	13	42x14	36	395	1347 bu.	.....	1½	58.88	39.60
27	14 x6	15	42x16	36	395	1572 bu.	.....	1½	61.80	44.32
28	16 x6	18	42x19	36	395	1679 bu.	.....	1½	63.94	51.48
29	11 x6	12	48x13	34	427	1314 bu.	.....	1½	83.30	45.30
30	12 x6	13	48x14	34	427	1442 bu.	.....	1½	84.57	48.00
31	14 x6	15	48x16	34	427	1682 bu.	.....	1½	88.23	53.60
32	16 x6	18	48x19	34	427	1815 bu.	.....	1½	91.08	62.16

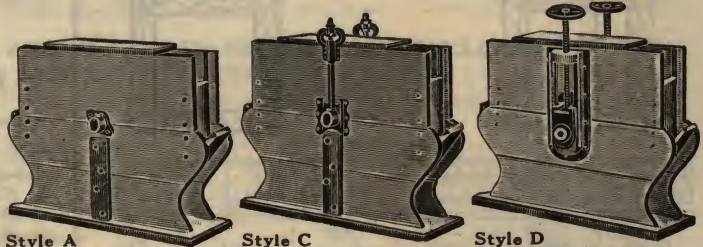
Note.—For three to five of any one size a discount of 5% will be allowed. For six or more 10% discount.

WOOD ELEVATOR BOOTS

Made of Dressed Seasoned White Pine Lumber

The most approved designs, made of one inch dressed clear White Pine and put together with flat head Bright Wood Screws.

All Boots equipped with clean-out slides. All boot pulleys are of Cast Iron, machine molded, bored, balanced and turned in a lathe.



Style A

Fig. E105

Style C
Adjustable Boxes
Fig. E106

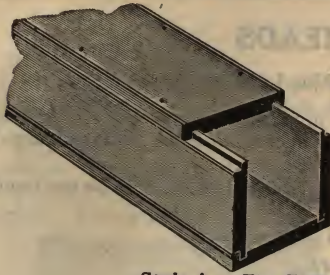
Style D
Adjustable Boxes
Fig. E107

SIZES AND NET PRICES (WITH TABLE OF SPEEDS AND CAPACITIES)

Size	Size of Cups Width Projection	Width of Belt	Size of Boot Pulley	Rev. per Minute	Belt Speed in Ft. per Minute	GRAIN Capacity Per Hour Cups 16 ins. apart Cups $\frac{3}{4}$ full	Net Price Style "A" Boot and Boot Shaft Without Pulley	Net Price Style "C" Boot and Boot Shaft Without Pulley	Net Price Style "D" Boot and Boot Shaft Without Pulley	Net Price of Pulley Extra
33	3 x3	3½	16x 4	48	200	38 bu.	\$13.48	\$16.01	\$31.19	\$ 4.16
34	3½x3	4	16x 4½	48	200	45 bu.	13.92	16.45	32.89	4.40
35	4 x3	4½	16x 5	48	200	50 bu.	14.36	16.89	33.33	4.64
36	3 x3	3½	18x 4	44	207	40 bu.	13.92	18.03	32.89	4.68
37	3½x3	4	18x 4½	44	207	47 bu.	14.36	18.35	33.33	4.98
38	4 x3	4½	18x 5	44	207	53 bu.	14.86	18.66	33.84	5.28
39	4½x3½	5	18x 5½	44	207	84 bu.	15.31	19.11	34.29	5.60
40	5 x4	5½	18x 6	44	207	117 bu.	15.62	19.42	34.60	5.92
41	6 x4	6½	18x 7	44	207	142 bu.	16.76	20.56	35.74	7.64
42	4 x3	4½	20x 5	42	220	58 bu.	15.31	19.23	34.29	6.04
43	4½x3½	5	20x 5½	42	220	90 bu.	15.82	19.73	34.79	6.40
44	5 x4	5½	20x 6	42	220	124 bu.	16.76	20.81	35.74	6.80
45	5½x4	6	20x 6½	42	220	137 bu.	17.08	21.25	36.06	7.10
46	6 x4	7	20x 7½	42	220	150 bu.	17.39	21.51	36.37	7.40
47	7 x4½	8	20x 8½	42	220	258 bu.	17.71	21.82	36.69	10.05
48	6 x4	7	24x 7½	38	238	163 bu.	18.15	22.26	39.66	11.30
49	7 x4½	8	24x 8½	38	238	280 bu.	18.66	22.77	40.16	12.40
50	8 x5	9	24x 9½	38	238	395 bu.	18.98	23.09	40.48	13.64
51	9 x5	10	24x10½	38	238	453 bu.	19.61	23.72	41.12	15.46

Note.—For boots of larger size—see Cast Iron Boots.

For three to five of any one size a discount of 5% will be allowed. For six or more 10% discount.



Style A Fig. E108

ELEVATOR LEGGING

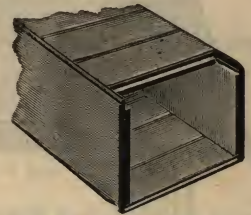
Style A is made of $\frac{7}{8}$ in. White Pine, dressed and ready to put together as shown in cut.

Shipped Knocked-Down

Style "B" is for 30x10 $\frac{1}{2}$ " Head Pulley and Larger.

Side Boards machine dressed, finished on both sides and sized to 1 $\frac{1}{2}$ " lumber.

All Front Boards of $\frac{7}{8}$ " dressed lumber.



Style B Fig. E111

SIZES—NET PRICES, ETC.

NET PRICE—PER FOOT—STYLE "B"

Size of Cups	Width of Belt, Inches	Size of Head and Boot Pulleys	Size of Legging		Style "A"
			Front Board Inches	Side Board Inches	
3 x3	3 $\frac{1}{2}$	16x 4	6 $\frac{1}{8}$	4 $\frac{1}{4}$	\$0.90
3 $\frac{1}{2}$ x3	4	16x 4 $\frac{1}{2}$	6 $\frac{5}{8}$	4 $\frac{1}{4}$	.95
4 x3	4 $\frac{1}{2}$	16x 5	7 $\frac{1}{8}$	4 $\frac{1}{4}$	1.00
3 x3	3 $\frac{1}{2}$	18x 4	6 $\frac{1}{8}$	4 $\frac{1}{4}$	.90
3 $\frac{1}{2}$ x3 $\frac{1}{2}$	4	18x 4 $\frac{1}{2}$	6 $\frac{5}{8}$	4 $\frac{1}{4}$	.95
4 x3	4 $\frac{1}{2}$	18x 5	7 $\frac{1}{8}$	4 $\frac{1}{4}$	1.00
4 $\frac{1}{2}$ x3 $\frac{1}{2}$	5	18x 5 $\frac{1}{2}$	7 $\frac{5}{8}$	4 $\frac{3}{4}$	1.05
5 x4	5 $\frac{1}{2}$	18x 6	8 $\frac{1}{8}$	5 $\frac{1}{2}$	1.10
6 x4	6 $\frac{1}{2}$	18x 7	9 $\frac{5}{8}$	5 $\frac{1}{2}$	1.15
4 x3	4 $\frac{1}{2}$	20 x5	7 $\frac{1}{8}$	4 $\frac{1}{4}$	1.00
4 $\frac{1}{2}$ x3 $\frac{1}{2}$	5	20x 5 $\frac{1}{2}$	7 $\frac{5}{8}$	4 $\frac{3}{4}$	1.05
5 x4	5 $\frac{1}{2}$	20x 6	8 $\frac{1}{8}$	5 $\frac{1}{2}$	1.10
5 $\frac{1}{2}$ x4	6	20x 6 $\frac{1}{2}$	8 $\frac{5}{8}$	5 $\frac{1}{2}$	1.10
6 x4	7	20x 7 $\frac{1}{2}$	9 $\frac{5}{8}$	5 $\frac{1}{2}$	1.15
7 x4 $\frac{1}{2}$	8	20x 8 $\frac{1}{2}$	10 $\frac{5}{8}$	6 $\frac{1}{4}$	1.50
6 x4	7	24x 7 $\frac{1}{2}$	9 $\frac{5}{8}$	5 $\frac{1}{2}$	1.25
7 x4 $\frac{1}{2}$	8	24x 8 $\frac{1}{2}$	10 $\frac{5}{8}$	6 $\frac{1}{4}$	1.50
*8 x5	9	24x 9 $\frac{1}{2}$	11 $\frac{5}{8}$	6 $\frac{3}{4}$	1.65
*9 x5	10	24x 10 $\frac{1}{2}$	12 $\frac{5}{8}$	6 $\frac{3}{4}$	1.75

*These sizes made of $\frac{7}{8}$ in. lumber but in style "B" only.

TRUNKING DIMENSIONS

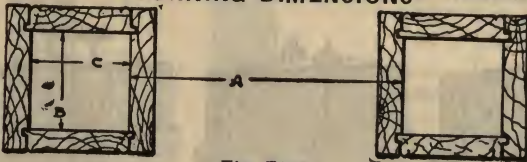


Fig. E109

Size of head pulley, inches.....	16	18	20	24
Dimensions "A" in inches.....	15 $\frac{1}{2}$	17 $\frac{1}{2}$	19 $\frac{1}{2}$	23 $\frac{1}{2}$

Size Cups	"B"	"C"	Size Cups	"B"	"C"
3 x3	4 $\frac{3}{8}$ "	4 $\frac{1}{4}$ "	5 $\frac{1}{2}$ x4	6 $\frac{7}{8}$ "	5 $\frac{1}{2}$ "
3 $\frac{1}{2}$ x3	4 $\frac{7}{8}$ "	4 $\frac{1}{4}$ "	6 x4	7 $\frac{7}{8}$ "	5 $\frac{1}{2}$ "
4 x3	5 $\frac{3}{8}$ "	4 $\frac{1}{4}$ "	7 x4 $\frac{1}{2}$	8 $\frac{7}{8}$ "	6 $\frac{1}{4}$ "
4 $\frac{1}{2}$ x3 $\frac{1}{2}$	5 $\frac{7}{8}$ "	4 $\frac{3}{4}$ "	8 x5	9 $\frac{7}{8}$ "	6 $\frac{3}{4}$ "
5 x4	6 $\frac{3}{8}$ "	5 $\frac{1}{2}$ "	9 x5	10 $\frac{7}{8}$ "	6 $\frac{3}{4}$ "

SPOUTING

Tongued, Grooved and Beaded

Spouting made of White Pine, $\frac{7}{8}$ inch dressed on both sides. Tongued and grooved, ready to put together. When desired assembled, add 20% to price.

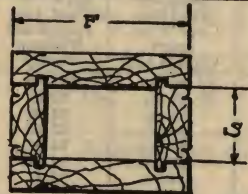


Fig. E110

DIMENSIONS AND NET PRICES

Size, outside measure, in. . . .	5 $\frac{1}{2}$ x4 $\frac{1}{8}$	6x4 $\frac{5}{8}$	6x5 $\frac{1}{8}$	7x5 $\frac{1}{8}$
Face Board, inches, "F"	5 $\frac{1}{2}$	6	6	7
Filler, inches, "S"	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	3 $\frac{1}{2}$
White Pine, pr. ft. length	\$0.40	\$0.44	\$0.46	\$0.52
Size, outside measure, inches	7x5 $\frac{5}{8}$	8x6 $\frac{1}{4}$	10x6 $\frac{5}{8}$	
Face Board, inches, "F"	7	8	10	
Filler, inches, "S"	4	4 $\frac{5}{8}$	5	
White Pine, pr. ft. length	\$0.58	\$0.63	\$0.69	

STANDARD CAST IRON ELEVATOR BOOT

For Wood Legging

Provided with clean-out hand holes, oil tubes and take-ups.

Furnished with either sprocket wheels or pulleys as desired.



Fig. E112

SIZES AND NET PRICES

No.	Pulley In.	Size Buc't	Price, Each	No.	Pulley In.	Size Buc't	Price, Each
1	10x 5	4x3	\$21.00	15	18x13	12x7	\$60.00
2	10x 6	5x4	23.00	16	18x15	14x7	65.00
3	12x 6	5x4	28.00	17	20x11	10x5 $\frac{1}{2}$	70.00
4	12x 7	6x4	30.00	18	20x13	12x7	73.00
5	12x 8	7x4 $\frac{1}{2}$	32.00	19	20x15	14x7	77.00
6	14x 7	6x4	33.00	20	20x17	16x7	80.00
7	14x 8	7x4 $\frac{1}{2}$	35.00	21	20x19	18x7	85.00
8	14x 9	8x5	40.00	22	20x21	20x7	90.00
9	16x 9	8x5	43.00	23	24x13	12x7	92.50
10	16x10	9x5	45.00	24	24x15	14x7	94.50
11	16x11	10x5 $\frac{1}{2}$	50.00	25	24x17	16x7	97.50
12	16x13	12x6	52.00	26	24x19	18x7	100.00
13	18x 9	8x5	56.00	27	24x21	20x7	105.00
14	18x11	10x5 $\frac{1}{2}$	58.00				

ELEVATOR BELTING AND BUCKETS

Fig. E113

Listed below are several combinations of Elevator Belting and Buckets.

The Belts will be punched with holes of proper size, uniformly spaced, and sufficient Reliance Cup Bolts are included for attaching the Buckets.

To minimize shipping charges we recommend that belt and buckets be shipped not assembled. However, when so ordered we will attach the buckets to the belt and crate for shipment at the following additional charges:

For two hole buckets.....	\$0.02 each
For three hole buckets.....	.03 each
For four hole buckets.....	.04 each
For five hole buckets.....	.05 each

For Belt and Bucket combinations not listed or for closer spacing we will quote upon receipt of specifications.

Prompt delivery assured on complete elevator belts, using any kind of belting or any style cups.

Prices below are for lengths of 100 feet with buckets spaced 16 inches apart. Will furnish longer or shorter lengths at proportionate prices.

SOLID WOVEN WHITE COTTON BELT, PUNCHED, AND WITH SALEM BUCKETS AND BOLTS FOR MOUNTING 16 INCHES APART—NET PRICES

Length, Feet	Width Belt, Inches	Ply	No. of Salem Buckets	Size Salem Buckets	Net Price	Length, Feet	Width Belt, Inches	Ply	No. of Salem Buckets	Size Salem Buckets	Net Price
100	3½	3	75	3 x3	\$18.25	100	6	4	75	5½x4	\$32.25
100	4	3	75	3½x3	19.25	100	7	4	75	6 x4	37.75
100	4½	3	75	4 x3	20.25	100	8	4	75	7 x4½	44.13
100	5	3	75	4½x3½	21.25	100	9	4	75	8 x5	50.63
100	5½	3	75	5 x4	24.75	100	10	4	75	9 x5	56.88
100	6	3	75	5½x4	27.25	100	11	4	75	10 x5½	61.88
100	7	3	75	6 x4	31.75	100	12	4	75	11 x6	70.88
100	8	3	75	7 x4½	37.13	100	12	5	75	11 x6	85.88
100	5	4	75	4½x3½	26.25	100	13	4	75	12 x6	80.00
100	5½	4	75	5 x4	28.75	100	13	5	75	12 x6	94.00

EXTRA STANDARD RUBBER BELT, PUNCHED, AND WITH SALEM BUCKETS AND BOLTS FOR MOUNTING 16 INCHES APART—NET PRICES

Length, Feet	Width Belt, Inches	Ply	No. of Salem Buckets	Size Salem Buckets	Net Price	Length, Feet	Width Belt, Inches	Ply	No. of Salem Buckets	Size Salem Buckets	Net Price
100	5	4	75	4½x3½	\$39.25	100	12	4	75	11x6	\$ 97.88
100	6	4	75	5½x4	48.25	100	12	5	75	11x6	114.88
100	7	4	75	6 x4	55.75	100	13	4	75	12x6	108.00
100	8	4	75	7 x4½	62.13	100	13	5	75	12x6	127.00
100	9	4	75	8 x5	69.63	100	15	4	75	14x6	125.00
100	10	4	75	9 x5	77.88	100	15	4	75	14x7	131.75
100	10	5	75	9 x5	91.88	100	15	5	75	14x6	147.00
100	11	4	75	10 x5½	85.88	100	15	5	75	14x7	153.75
100	11	5	75	10 x5½	101.88	100	18	5	75	16x7	182.48

Other Sizes—Prices on application.

EXTRA STANDARD RUBBER BELT, PUNCHED, AND WITH SUPERIOR "DP" CUPS AND BOLTS FOR MOUNTING 12 INCHES APART—NET PRICES

Length, Feet	Width Belt, Inches	Ply	No. of "DP" Buckets	Size "DP" Buckets	Net Price	Length, Feet	Width Belt, Inches	Ply	No. of "DP" Buckets	Size "DP" Buckets	Net Price
100	5	4	100	4½x3½	\$61.00	100	13	4	100	12x6	\$154.00
100	6	4	100	5½x4	70.00	100	13	5	100	12x6	173.00
100	7	4	100	6 x4	76.00	100	14	5	100	13x7	216.44
100	8	4	100	7 x4	82.50	100	15	4	100	14x6	174.00
100	9	4	100	8 x5	106.50	100	15	4	100	14x7	209.00
100	10	4	100	9 x5	116.50	100	15	5	100	14x6	196.00
100	10	5	100	9 x5	130.50	100	15	5	100	14x7	231.00
100	11	4	100	10 x5½	130.50	100	18	5	100	16x7	269.58
100	11	5	100	10 x5½	146.50	100	20	5	100	18x8	301.32
100	12	4	100	11 x6	142.50	100	22	5	100	20x8	325.80
100	12	5	100	11 x6	159.50						



Fig. E114
Front

SALEM STEEL ELEVATOR BUCKETS

A standard bucket—Universally used.

The popularity of the Salem Bucket is due to the rigid one piece construction and correct shaping for quick filling and free discharge.



Fig. E115
Back

SIZES AND NET PRICES

Bucket Size Inches		Capacity Cubic Inches	Gauge	Price Each	Center to Center Holes Inches	No. Holes Inches	Bucket Size Inches		Capacity Cubic Inches	Gauge	Price Each	Center to Center Holes Inches	No. Holes Inches
Length	Projection						Length	Projection					
2½	2½	7	24	\$0.08	7/8	2	7	4½	66	20	\$0.17	21½/16	3
3	2½	9	24	.08	13/8	2	8	5	98	19	.19	31/16	3
3	3	12	22	.08	13/8	2	9	5	110	19	.22	35/8	3
3½	3	15	22	.08	17/8	2	10	5½	156	19	.26	41/8	3
4	3	17	22	.08	25/16	2	10	6	187	18	.31	41/8	3
4½	3	20	22	.08	25/16	2	11	6	206	18	.34	411/16	3
4	3½	24	22	.08	23/4	2	12	6	225	18	.38	33/8	4
4½	3½	27	22	.08	23/4	2	14	6	263	18	.46	4	4
5	3½	30	22	.09	33/16	2	12	7	312	18	.47	33/8	4
5	4	41	20	.10	33/16	2	14	7	364	18	.55	4	4
5½	4	45	20	.12	35/8	2	16	7	416	18	.63	3½	5
6	4	49	20	.14	43/8	2							

Odd sizes and heavier gauges also Galvanized Cups furnished. Prices on application.

MINNEAPOLIS "V" TYPE BUCKETS



Fig. E116

A bucket particularly adapted to high speed with perfect discharge. Sizes 14 in. and larger provided with wrought iron braces.

SIZES AND NET PRICES

Bucket Size Inches			Gauge, Steel	Capacity, Cubic Inches	No. of Holes	C. to C. of Hole Inches
Lgth.	Projection	Price Each				
3	3	\$0.10	28	11	2	13/8
3½	3	.10	28	13	2	17/8
4	3	.10	28	15	2	25/16
4½	3	.11	27	17	2	23/4
4½	3½	.12	27	23	2	23/4
5	4	.14	26	32	2	33/16
5½	4	.15	26	35	2	35/8
6	4	.16	26	38	2	43/8
7	4½	.20	26	58	3	211/16
8	5	.28	24	80	3	31/16
9	5	.32	22	90	3	35/8
9	6	.40	22	135	3	35/8
9	7	.56	20	180	3	35/8
10	5½	.44	20	122	3	41/8
10	6	.48	20	150	3	41/8
10	7	.60	20	200	3	41/8
11	6	.52	20	165	3	411/16
12	6	.54	20	180	4	33/8
12	7	.66	20	240	4	33/8
12	8	1.00	18	305	4	33/8
14	6	.70	20	210	4	4
14	7	.84	20	280	4	4
14	8	1.18	18	361	4	4

STEEL EAR CORN BUCKETS

A heavy riveted sheet steel bucket with reinforcing band around top. Intended for Ear Corn and other heavy materials.



Fig. E117

REGULAR SIZES AND NET PRICES

Bucket Size, Inches		Price Each	Capacity Cu. In.	No. of Holes	C. to C. of Holes
Length	Projection				
11	7	\$1.05	288	4	3
12	7	1.09	320	4	33/4
13	7	1.14	352	4	33/4
14	7	1.16	384	4	33/4
15	7	1.19	416	5	31/4
16	7	1.24	448	5	33/4
18	7	1.34	480	6	31/4

An additional discount allowed on 50 or more of any one size.

MALLEABLE IRON ELEVATOR BUCKETS

Seamless, strong and smooth with rounded corners. Recommended for cement, coal, chemicals, etc.



Fig. E118—Style "A"

SIZES AND NET PRICES

Bucket Size, Inches			Capacity Cu. In.	Price Each
Length	Width	Depth		
4	2½	3	16	\$0.20
5	3½	3½	36	.33
6	4	4¼	55	.43
7	4½	5	85	.51
8	5	5½	115	.60
10	6	6¼	204	.97
12	6	6¼	246	1.10
12	7	7¼	332	1.27
14	7	7¼	391	1.47
16	7	7¼	467	1.73
14	8	8½	509	2.00
16	8	8½	593	2.27
18	8	8½	668	2.50

SUPERIOR ELEVATOR CUPS

Guaranteed Free Discharge at Low or High Speeds

The "DP" is our standard Superior Cup and is shipped on all orders unless the "OK" is specified.

If you want to increase your elevator capacity, without changing your speed or equipment in any way, the "DP" is the cup to use.

The "DP" will discharge at any spacing, and at any speed used with other cups.

In addition it can be spaced closer, and will discharge at higher speeds than other cups (See tables of speed and spacing below) so to get a largely increased capacity, space your cups closer, and speed up your elevator.



Fig. E119
Superior "DP"



Fig. E120
Superior "OK"

The "OK" is a cup especially constructed for special purposes and should not be installed except upon our recommendation. It is slightly different in shape from the "DP," being made with a greater flare, so that it will discharge at much higher speeds than even the "DP." Because of the greater flare, and the speed at which it can be used, it will handle damp sticky materials better than the "DP" or any other cup.

TABLE OF SIZES AND NET PRICES—F. O. B. Factory

Cup No.	Size		Std. Gauge	Superior			Price	Cup No.	Size		Std. Gauge	Superior			Price
	Width Ins.	Proj'n Ins.		Contents		Spacing Ins.			Width Ins.	Proj'n Ins.		Contents		Spacing Ins.	
				"D P"	"O K"							"D P"	"O K"		
202	2	2	26	5.20	4.00	5	\$0.13	457	7	4½	20	92.	71.	9	\$0.39
202½	2½	2	26	6.50	5.00	5	.13	505	5	5	20	81.	62.	10	.41
303	3	3	24	17.55	13.50	6	.20	506	6	5	20	97.	75.	10	.43
303½	3½	3	24	20.47	15.75	6	.22	507	7	5	20	114.	94.	10	.47
304	4	3	24	23.40	18.00	6	.23	508	8	5	20	130.	106.	10	.50
304½	4½	3	24	26.32	20.25	6	.24	509	9	5	20	146.	118.	10	.54
353½	3½	3½	24	27.86	21.42	7	.24	5510	10	5½	19	196.	151.	10	.63
354	4	3½	22	31.84	24.48	7	.26	609	9	6	19	211.	162.	11	.61
354½	4½	3½	22	35.82	27.54	7	.27	6010	10	6	18	234.	180.	11	.65
404	4	4	22	41.6	32.0	8	.26	6011	11	6	18	257.	198.	11	.69
404½	4½	4	22	46.8	36.0	8	.27	6012	12	6	18	281.	216.	11	.73
405	5	4	22	52.0	40.0	8	.28	6014	14	6	18	328.	252.	11	.82
405½	5½	4	22	57.2	44.0	8	.30	709	9	7	18	286.	220.	12	.79
406	6	4	22	62.4	48.0	8	.30	7011	11	7	18	350.	269.	12	.95
407	7	4	20	72.8	56.0	8	.32	7012	12	7	18	382.	294.	12	1.02
455	5	4½	22	65.7	50.6	9	.32	7013	13	7	18	414.	318.	12	1.09
455½	5½	4½	22	72.3	55.7	9	.34	7014	14	7	18	446.	343.	12	1.17
456	6	4½	20	78.9	60.7	9	.35	7016	16	7	18	509.	392.	12	1.32

TABLE OF CAPACITIES

Note.—This table shows the capacity secured with Superior "DP" Cups and ordinary cups, using the same size of cups and the same belt speed. Gross capacities are shown.

Actual usable capacity about 75% of given capacities.

Width	Proj'n	Speed	Capacity "DP" bu.per hour	Capacity Ord. bu.per hour	Width	Proj'n	Speed	Capacity "DP" bu.per hour	Capacity Ord. bu.per hour	Width	Proj'n	Speed	Capacity "DP" bu.per hour	Capacity Ord. bu.per hour
2	2	176	60	15	7	5	238	912	472	10	6	358	2540	1398
3	2	176	93	23	8	5	238	1040	520	11	6	358	2790	1538
3	3	182	178	60	9	5	238	1168	584	12	6	358	3060	1678
4	3	182	238	86	10	5	238	1296	648	14	6	358	3566	1969
4	3 1/2	182	274	121	11	5	238	1426	712	9	7	427	3410	2085
4	4	200	346	184	12	5	238	1554	770	10	7	427	3790	2323
5	4	200	435	228	8	5 1/2	317	1666	877	11	7	427	4170	2550
6	4	200	519	235	9	5 1/2	317	1878	990	12	7	427	4550	2788
7	4	200	609	273	10	5 1/2	317	2080	1104	13	7	452	5250	3191
5	4 1/2	207	504	237	8	6	358	2030	1123	14	7	452	5620	3443
6	4 1/2	207	605	283	9	6	358	2293	1265	16	7	452	6420	3935
6	5	238	776	387										

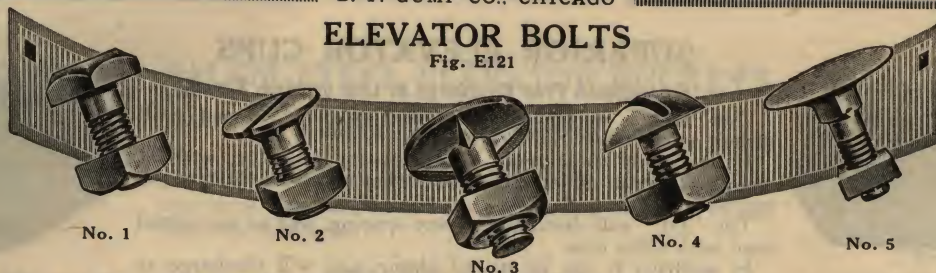
TABLE OF SPEEDS

R.P.M. and Feet per Minute of Elevator Belt								
Pulleys	Standard Low Speed		Limit for "DP" Used with Flour		Limit for "DP" Used with Grain		High Speed "OK" Cups	
	Diam. Inches	R.P.M.	Ft.P.M.	R.P.M.	Ft.P.M.	R.P.M.	Ft.P.M.	R.P.M.
8	75	155	148	306	176	364	220	455
10	64	169	117	309	140	369	200	528
12	56	176	100	314	120	376	180	565
14	50	182	87	317	105	382	165	600
16	48	200	77	321	93	388	150	627
18	44	207	69	324	83	390	140	659

R.P.M. and Feet per Minute of Elevator Belt								
Pulleys	Standard Low Speed		Limit for "DP" Used with Flour		Limit for "DP" Used with Grain		High Speed "OK" Cups	
	Diam. Inches	R.P.M.	Ft.P.M.	R.P.M.	Ft.P.M.	R.P.M.	Ft.P.M.	R.P.M.
20	42	219	62	328	75	391	130	677
24	38	238	54	339	65	408	110	691
30	38	298	50	292	60	471	95	745
36	37	348	48	452	58	546	85	800
42	36	395	44	483	53	582	78	857
48	34	427	42	528	50	628	70	880

ELEVATOR BOLTS

Fig. E121



No. 1

No. 2

No. 3

No. 4

No. 5

SQUARE HEAD BOLTS
No. 1

For attaching Elevator Buckets to Link Belting.

NET PRICE—
PER HUNDRED

Size Bolt	Per 100
$\frac{1}{4} \times \frac{3}{4}$	\$1.10
$\frac{1}{4} \times 1$	1.10
$\frac{1}{2} \times \frac{3}{4}$	1.30
$\frac{1}{2} \times 1$	1.30
$\frac{3}{8} \times \frac{3}{4}$	1.55
$\frac{3}{8} \times 1$	1.55

RELIANCE ELEVATOR BOLTS
Nos. 2 AND 3

These bolts have slot in head for screwdriver and are corrugated on under side, making the best Elevator Bolt on the market.

NET PRICES PER BOX
(100 Bolts and Nuts to a box)

Carried in stock in the following sizes:

$\frac{1}{4} \times \frac{1}{2}$	\$1.25	$\frac{1}{4} \times 1$	\$1.35
$\frac{1}{4} \times \frac{5}{8}$	1.25	$\frac{1}{4} \times 1\frac{1}{4}$	1.40
$\frac{1}{4} \times \frac{3}{4}$	1.25	$\frac{1}{4} \times 1\frac{1}{2}$	1.50
$\frac{1}{4} \times \frac{7}{8}$	1.35		

BUTTON HEAD
BOLTS—No. 4

For attaching Elevator Buckets to Link Belting.

NET PRICE
PER HUNDRED

Size Bolt	
$\frac{3}{16} \times \frac{1}{2}$	\$0.50
$\frac{3}{16} \times \frac{5}{8}$.....	.55
$\frac{1}{4} \times \frac{5}{8}$.....	.60
$\frac{1}{4} \times \frac{3}{4}$.....	.65

NORWAY FLAT HEAD
ELEVATOR BOLTS No. 5

These bolts are forged from best quality Norway Iron. Head is flat and large in diameter, affording a great bearing surface on the belt, preventing the belt from pulling through.

NET PRICE—PER HUNDRED

Size Bolt		Size Bolt	
$\frac{1}{4} \times \frac{3}{4}$	\$1.50	$\frac{5}{8} \times 1$	\$2.20
$\frac{1}{4} \times \frac{1}{2}$	1.60	$\frac{5}{8} \times 1\frac{1}{4}$	2.30
$\frac{1}{4} \times 1$	1.60	$\frac{5}{8} \times 1\frac{1}{2}$	2.40
$\frac{1}{4} \times 1\frac{1}{4}$	1.70	$\frac{3}{4} \times 1$	2.95
$\frac{1}{4} \times 1\frac{1}{2}$	1.75	$\frac{3}{4} \times 1\frac{1}{4}$	3.15
$\frac{3}{8} \times 1\frac{1}{2}$	\$3.30		

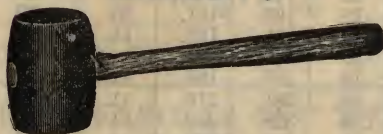
RUBBER HEAD
MALLET

Fig. S128

These mallets are almost indispensable to the miller for tapping spouts, bins, feeders, reels, sifters, etc., in which any stock may have become clogged. Made of best quality rubber, resilient, and will give long service. Two sizes.

Size Head $3 \times 2\frac{1}{4}$ inches, each....\$0.55

Size Head $4 \times 2\frac{1}{8}$ inches, each.... .65

HEAD BEARINGS



Fig. E122

Allow the removal of one side of head without removing bolts or screws. Furnished with heads or separately as desired. Babbitted.

1-11/16" Pair \$2.25

1-15/16" Pair 2.50

BOOT BEARINGS

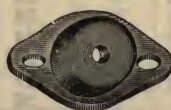


Fig. E123

Ends closed to allow use of straight shafts without shoulders. Slotted holes allow small adjustment. Babbitted.

1-11/16" per pair.....\$1.50

1-15/16" per pair..... 1.75

ANGLE IRONS

Fig. S130

For spouting, conveyor boxes, machinery elevator legs, etc.



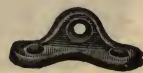
No. 1



No. 2

NET PRICES

	Ea.	25 Lots	50 Lots
No. 1..	\$0.15	\$3.25	\$6.25
No. 2..	.20	4.50	8.50
No. 3..	.10	2.25	4.25



No. 3

WOODEN CONVEYOR FLIGHTS

Hard Maple



Fig. C100

SIZES AND NET PRICES

SIZE	Square of Shank	Length of Shank	Net Price Per 100
$1\frac{1}{4} \times 1\frac{1}{4}$...	$\frac{3}{8}$	$\frac{5}{16}$	\$2.75
$1\frac{1}{2} \times 1\frac{1}{2}$...	$\frac{3}{8}$	$1\frac{1}{8}$	3.25
$1\frac{3}{4} \times 1\frac{3}{4}$...	$\frac{7}{16}$	$1\frac{1}{4}$	4.00
2 x 2	$\frac{7}{16}$	$1\frac{1}{4}$	5.00
$2\frac{1}{4} \times 2\frac{1}{4}$...	$\frac{17}{32}$	$1\frac{3}{8}$	7.50

LEATHER WASHERS



Fig. E124

Leather washers are a real protection and are used extensively on Cotton and Rubber Belts.

NET PRICE—PER HUNDRED

For $\frac{1}{4}$ -inch bolts.....\$0.20

For $\frac{5}{16}$ -inch bolts..... .25

CAST STEEL PLAIN BRACES

$\frac{1}{2}$ Inch Steel

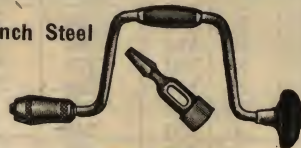


Fig. E125

Steel Alligator jaws. Stained hardwood head and handle. A good brace at a moderate price. Nicely finished 8-inch sweep.

Cast Steel Plain Brace, each....\$1.50

Complete with Socket for $\frac{1}{4}$ " Bolts. Socket, only, for $\frac{1}{4}$ " bolts..... .10

MALLEABLE IRON SOCKET
WRENCHES

Fig. E126

Malleable iron socket wrenches are almost indispensable for attaching elevator buckets to belting. They make it easy to get at and quickly tighten the bolts. For $\frac{1}{4}$ -inch bolts, taking $\frac{1}{2} \times \frac{1}{2}$ nut. Length 8 inches.

Malleable Iron Socket Wrench, each.....\$0.45

GENUINE
"OSBORNE"
ROUND BELT
PUNCHES

The Best Punch Made.

Will Outlast Three Ordinary Punches.



Fig. S129

No.	Size hole, inches	Price, each round hole
7.....	$\frac{3}{16}$	\$0.35
8.....	$\frac{1}{8}$	.35
9.....	$\frac{7}{32}$	.35
10.....	$\frac{1}{4}$	.35
11.....	$\frac{9}{32}$	.40
12.....	$\frac{11}{32}$	.40
13.....	$\frac{3}{8}$	.55
14.....	$\frac{13}{32}$	.55
15.....	$\frac{1}{2}$	.65

FLEXIBLE TELESCOPING GRAIN SPOUT FOR LOADING CARS



Fig. M169

These spouts have chain connections and will turn any angle. Special sizes made to order any size or any length. In ordering give size of wooden spout to which you wish spout fitted.

SIZES AND NET PRICES—F. O. B. Factory

Diam. Ins.	Length Feet	Head Size Inside		Gauge of Metal			
		Square Ins.	Round Dia. In.	No. 18	No. 16	No. 14	No. 12
6	5	8	7	\$ 6.80	\$ 8.00	\$ 9.60	\$13.60
	6	8	7	8.16	9.60	12.48	16.32
	8	8	7	10.88	12.80	16.64	21.76
8	6	10	9	8.40	10.00	12.80	16.80
	8	10	9	11.20	13.30	17.08	22.40
	10	10	9	14.00	16.00	21.36	28.00
10	6	12	11	9.60	12.00	14.40	18.40
	7	12	11	.....	12.00	15.20	20.00
	8	12	11	.....	13.72	17.40	22.84
	10	12	11	.....	17.16	21.76	28.56
12	8	14	13	14.80	16.00	20.00	24.00
	10	14	13	.....	.....	25.04	30.00

NET PRICES EXTRA SECTIONS FOR FLEXIBLE SPOUTS

Diameter Spout Inches	THICKNESS OF STEEL				Length Section Adds to Spout
	18 Gauge	16 Gauge	14 Gauge	12 Gauge	
6	\$1.08	\$1.22	\$1.49	\$1.96	9 1/4"
8	1.35	1.55	1.89	2.50	9 1/4"
10	1.69	1.89	2.30	3.04	10 1/2"
12	1.96	2.23	2.63	3.51	10 1/2"

Connecting Chain, each. \$0.16 Extra Bolts, each.....\$0.05

STEEL HOPPER AND TURN HEAD

An all steel distributor furnished with stem and step box as shown.



Fig. M170—Style A

When ordering, always state the size of buckets which will be used with the spout, or, if possible, give inside measures of discharge spout at head of elevator and size of indicator rod.

SIZES AND NET PRICES

Diameter of Spout Inside Inches	Price, Style A, All Steel	Center of Rod to Cen- ter of Dis- charge, Ins.	Top of Hopper to Bottom of Spout, Ins.	Size of Socket for Indicator Rod, Ins.
6	\$10.80	30	33	7/8
9	14.40	36	41 1/4	1
12	19.20	42	47 1/2	1 1/4

CAST IRON TURN HEAD

With Hopper

The elbow fits over the hopper bottom loosely and is supported by the rod independently of the hopper bottom. This prevents binding in case of unequal settling of the building.

NET PRICE, INCLUDING HOPPER

7 inch diameter spout, each...\$13.75
9 inch diameter spout, each... 16.50
12 inch diameter spout, each... 20.50



Fig. M172

INDICATOR STANDS

Our Indicator Stands are of neat design and well made throughout.

Net Prices complete with 6 to 8 figures.....\$12.25
Extra figures, each... .27
Rings only, 6 to 10 figures..... 5.00

INDICATOR RING

With six bin numbers and twelve feet of one-inch pipe, with coupling.

Price net, each.....\$5.50

INDICATOR ROD

	Net per ft.
1 inch.....	\$0.25
1 1/4 inch.....	.30
1 1/2 inch.....	.35

1 inch Couplings. Net each.....	\$0.40
1 1/4 inch Couplings. Net each.....	.50
1 1/2 inch Couplings. Net each.....	.60

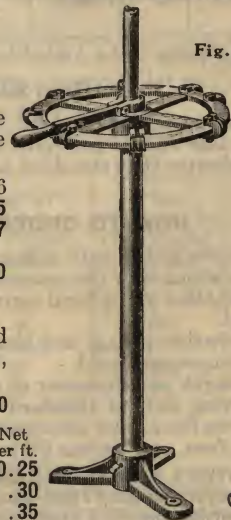


Fig. M173

SWIVEL STEEL GRAIN SPOUTS

Made of heavy sheet steel, and pivoted in such manner that spout may be turned to discharge in any direction. Hopper 10x10 inches square, discharge spout 6 1/2 inches diameter.

Price each, net.....\$10.00



Fig. M171

STANDARD STEEL CONVEYOR

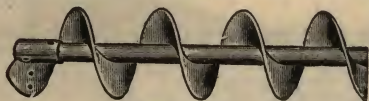


Fig. C101

Black Iron Standard Flights and Pipe.

The standard lengths given below include the width of one hanger bearing. The Net Prices given for Standard Lengths include one hanger, one coupling, the necessary bolts and lining.

Drive Ends and Tail Ends are charged for extra.

Proper deductions are made for fittings not wanted, which are included with every Standard length.

Fittings are not furnished with conveyors ordered less than Standard length, but will be charged for extra when desired.

Galvanized Conveyor, all sizes. Prices on application.

SIZES AND NET PRICES

Outside Diam. Inches	Standard Length, Ft.	Diameter of Gudgeons, Inches	Maximum Capacity per Hour, Bu. Grain	Recom-mended R.P.M.	*Base Price Per Foot for Computing Short Length Prices	Net Price Per Standard Length
4	8	1	58	200	\$1.10	\$ 8.80
6	10	1 1/2	195	180	1.20	12.00
9	10	1 1/2	728	170	1.60	16.00
9	10	2	728	170	1.80	18.00
10	10	1 1/2	965	165	1.80	18.00
12	12	2	1745	165	2.00	24.00
12	12	2 1/2	1745	165	2.40	28.80
14	12	2 1/2	2350	160	3.00	36.00
14	12	3	3400	160	3.40	40.80
16	12	3	4100	160	3.60	43.20
18	12	3	6000	120	4.40	52.80

*Extra Charge to be Added to above base price for:—

Shorter Than Standard Lengths

2 ft. and less add 75 per cent, 5 ft. and less add 50 per cent, 8 ft. and less add 25 per cent; and for lengths longer than 8 ft. but shorter than standard add 15 per cent to above base price.

HOW TO ORDER CONVEYOR

The arrows in the cuts indicate which way the conveyor turns and which way the material is carried.

State whether right-hand conveyor or left-hand conveyor is wanted.

State whether linings and hangers are wanted, and state style of hanger preferred.

State length and diameter of driving end, and if possible order driving ends of standard diameters.

When possible, order conveyors in feet without fractional parts of a foot, and we can fill promptly with stock lengths.

All conveyors made of steel, unless otherwise ordered.

All conveyors shipped right-hand, unless otherwise ordered.

Unless order specifies exact length of pipe, we deduct from length given the width of one hanger bearing.

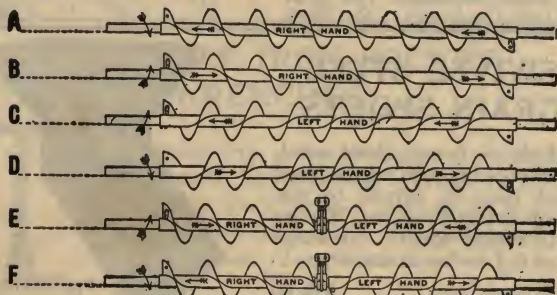


Fig. C102

EXTRA HEAVY STEEL CONVEYOR

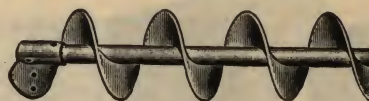


Fig. C103

The price list below includes hangers and couplings (one for each standard length) but no Lining.

SIZES AND NET PRICES

Diam-eter Inches	Standard Length, Ft.	Thickness of Flights	Inside Diameter of Pipe, Inches	Net Price Per Standard Length
4	8	1/8	1	\$ 9.60
6	10	1/8	1 1/2	13.00
6	10	3/16	1 1/2	16.00
9	10	1/8	1 1/2	17.00
9	10	3/16	1 1/2	20.00
9	10	1/4	1 1/2	23.00
9	10	3/16	2	23.00
12	12	3/16	2	30.00
12	12	1/4	2	33.60
12	12	3/16	3	36.00
12	12	1/4	3	39.60
14	12	3/8	3	62.40
16	12	3/8	3	67.20

Other sizes furnished. Prices on application.

CUT FLIGHT CONVEYOR



Fig. C104

For Net Price Add 25 per cent to Price of Regular Conveyor.

Used in Mills for mixing granular products—also used for removing dirt, sand, grit, etc., from seeds, cotton seed, grains, etc.—in this connection perforated lining is generally used to remove foreign material.

CUT AND FOLDED FLIGHT CONVEYOR



Fig. C105

For Net Price Add 35 per cent to price of the Regular Conveyor.

Used to stir light material and mix it up thoroughly.

The folded flight gives a retarding action, working the stock continually.

CONVEYOR WITH MIXING PADDLES



Fig. C106

For Net Price Add 35 per cent to Price of Regular Conveyor.

Used for mixing all kinds of mill stock.

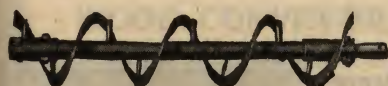


Fig. C107

RIBBON CONVEYORS

This type of conveyor is peculiarly adapted for handling sticky materials, such as molasses, hot tar, asphalt, sugar, etc. Material of the character specified is apt to collect on the flight of an ordinary conveyor where the flight joins the pipe. The clear space around the pipe in a Ribbon Conveyor avoids this difficulty. Price on application.

CONVEYOR DRIVE ENDS

Where driving ends are less diameter than standard, we use shaft of standard diameter and turn the projecting portion. Where driving ends are greater diameter than standard, we use shaft of diameter of projecting portion, and turn about 6 inches to go into conveyor.

For odd size driving ends we charge for shaft used and labor in cutting off, turning, drilling and fitting same.

SIZES AND NET PRICES

Projection from Pipe Inches	1-inch Diam.	1½-inch Diam.	2-inch Diam.	2½-inch Diam.	3-inch Diam.
6	\$0.45	\$0.77	\$1.22	\$1.87	\$2.77
8	.50	.86	1.35	2.12	3.15
10	.54	.95	1.51	2.34	3.49
12	.56	1.04	1.69	2.59	3.85
14	.61	1.15	1.85	2.81	4.21
16	.65	1.24	2.00	3.06	4.57
18	.70	1.35	2.18	3.31	4.95
20	.74	1.44	2.34	3.56	5.31
22	.79	1.53	2.50	3.78	5.67
24	.83	1.62	2.66	4.03	6.03
26	.88	1.71	2.84	4.25	6.37
28	.92	1.80	3.02	4.50	6.75
30	.99	1.91	3.20	4.79	7.16
32	1.04	2.03	3.35	5.02	7.49
34	1.08	2.12	3.51	5.27	7.85
36	1.13	2.21	3.67	5.49	8.21
42	1.24	2.48	4.14	6.21	9.29
48	1.40	2.77	4.61	6.91	10.35



Fig. C109

CONVEYOR LINING

Curved steel conveyor lining for conveyor boxes. It is made in standard widths as listed below. Standard gauges are listed in heavy type.

SIZES AND NET PRICES—Per Lineal Foot

Size Conveyor	Width Sheet	Gauge of Steel							
		24	22	20	18	16	14	12	10
4"	8"	\$0.10	\$0.11	\$0.13	\$0.19	\$0.21	.....	.....	.....
6"	12"	.13	.16	.21	.27	.32	\$0.37	.....	.....
9"	18"	.....	.27	.29	.40	.45	.53	\$0.72	\$0.95
10"	20"	.....	.....	.32	.42	.48	.61	.82	1.06
12"	24"	.....	.....	.37	.50	.58	.72	.98	1.27
14"	28"	.....	.....	.....	.64	.74	.90	1.22	1.59
16"	32"	.....	.....	.....	.69	.80	.98	1.30	1.64
18"	36"	.....	.....	.....	.77	.87	1.09	1.48	1.91

STANDARD CONVEYOR COUPLINGS



Fig. C110

SIZES AND NET PRICES

Diameter of Coupling	Price Each
1 inch.....	\$0.50
1½-inch.....	.90
2 -inch.....	1.50
2½-inch.....	2.00
3 -inch.....	3.00

CONVEYOR FLIGHTS

For Repairing Standard Conveyor



Fig. C111

In ordering flights be particular to state the pitch of screw, inside or outside diameter of pipe, and whether right or left hand.

These prices include necessary rivets and lug fastenings. The prices given are for standard flights of regular thickness of metal.

In case any flights are wanted for the end of the section of conveyor, it should be so specified, as such end flights have proper space cut out to go over the end collar on the pipe.

SIZES AND NET PRICES

Diameter of Conveyor	Outside Diameter Pipe, Inches	Standard Pitch of Flight, Inches	Space on Pipe Covered by One Flight, Inches	Net Price, Each
4-inch...	1¼	5	5	\$0.11
6-inch...	2	6	6½	.20
9-inch...	2	9½	10	.42
10-inch...	2	10	12¾	.55
12-inch...	2½	12	12	.80
16-inch on 3 in. pipe.	3½	16	16	1.10

Heavy Flights Furnished—Prices on Application.

FLIGHT SUPPORTS

Fig. C112

End Studs Threaded

Size Conveyor	Center Stud		Size Conveyor	End Stud	
	Diam. Shank	Price Each		Diam. Shank	Price Each
4"	⅜"	\$0.07	4"	⅜"	\$0.10
6"	½"	.10	6"	½"	.11
9"	⅝"	.10	9"	⅝"	.23
12"	¾"	.15	12"	¾"	.25



Fig. C113—Style A
Inside Pattern for Wood Box

CAST IRON CONVEYOR BOX ENDS FOR WOOD BOX

The Style "A" is a full cast iron box end. It takes the place of a hanger or outside bearing as well as supporting the box itself. Style "B" has the lower half of the box end cut away so that discharge may be out through the end instead of cutting a delivery opening in bottom of box.



Fig. C114—Style B
Discharge Box End for
Wood or Steel Box

SIZES AND NET PRICES

Diameter Conveyor	Diameter Shaft	Price Each Style "A"	Net Price Each Style "B"	Diameter Conveyor	Diameter Shaft	Price Each Style "A"	Net Price Each Style "B"
4-inch	1 -inch	\$1.50	\$1.75	10-inch	2 -inch	\$4.50	\$5.50
6-inch	1½-inch	2.25	2.75	12-inch	2 -inch	6.00	7.00
8-inch	1½-inch	.....	.....	12-inch	3 -inch	7.50	9.00
9-inch	1½-inch	3.38	4.00	14-inch	2 -inch	7.88	9.00
9-inch	2 -inch	3.75	4.50	14-inch	2 ⅞-inch	9.38	10.50
10-inch	1½-inch	4.13	5.00	16-inch	3 -inch	10.50	12.50



Fig. C115
Without Feet—Inside Pattern

CAST IRON CONVEYOR BOX ENDS FOR STEEL BOX WITH OR WITHOUT FEET

Unless specified "With Feet" Box Ends will be sent Without Feet as illustrated.

SIZES AND NET PRICES

Diameter Conveyor	Diameter Shaft	Price Each Without Feet	Price Each With Feet	Diameter Conveyor	Diameter Shaft	Price Each Without Feet	Price Each With Feet
4-inch	1 -inch	\$1.50	\$3.00	10-inch	2 -inch	\$4.50	\$8.50
6-inch	1½-inch	2.25	4.00	12-inch	2 -inch	6.00	10.00
8-inch	1½-inch	.....	.....	12-inch	3 -inch	7.50	14.00
9-inch	1½-inch	3.38	7.00	14-inch	2 -inch	7.88	14.50
9-inch	2 -inch	3.75	7.50	14-inch	2 ⅞-inch	8.63	15.50
10-inch	1½-inch	4.13	8.00	16-inch	3 -inch	11.25	22.00

CONVEYOR HANGERS



Fig. C116
Style No. 13 for Wood Box



Fig. C118
Style No. 14 for either Wood or Steel Box



Fig. C119
Style No. 17 for Wood Box

Hangers always furnished for Wood Box unless otherwise specified.

SIZES AND NET PRICES

Diameter of Conveyor	Bore of Bearing	Length of Bearing	No. 12 Solid Eye	No. 12 Bolted Cap	No. 13 Solid Eye	No. 13 Bolted Cap	No. 14	No. 17
4-inch	1	1½	\$1.05	\$1.40	\$1.05	\$1.40	\$1.75	\$1.60
6-inch	1½	2	1.20	1.55	1.20	1.55	1.75	1.90
9-inch	1½	2	.....	2.10	.....	2.10	2.45	2.45
10-inch	2	2	.....	3.00	.....	3.00	3.35	3.35
12-inch	2	2	.....	3.15	.....	3.15	3.50	3.50
14-inch	2 ⅞	3	.....	5.25	.....	5.25	5.60	5.60
16-inch	3	3	.....	7.35	.....	7.35	7.85	7.85

Other Styles and Sizes. Price on Application.



Fig. C117
Style No. 12 for Steel Box

WOOD CONVEYOR BOXES

Made of dressed white pine lumber to the dimensions given in column opposite. The complete price of conveyor boxes is found by adding together—prices of necessary Conveyor with lining, hangers and couplings, wood box, 2 cast iron box ends, one tail projection, and one drive projection, 12 inches long and labor of assembling. When longer or shorter than sizes given are wanted see additional price per foot charge. Prices include $\frac{7}{8}$ " cover on all sizes.

When countershaft box end is wanted, only one cast iron box end is required.

SIZES AND NET PRICES

Size of Conveyor Inches	Net Prices Wood Box Only per foot	Net Price 10' Conveyor complete, 12" Drive End	Net Price Each Extra ft., complete
4	\$0.90	\$40.32	\$3.46
6	1.08	48.24	4.10
9	1.62	67.68	5.40
10	1.95	83.52	6.30
12	2.28	99.36	7.20
14	2.94	134.64	9.90
16	3.60	169.92	12.60

STANDARD COUNTERSHAFT BOX ENDS

For Either Wood or Steel Box

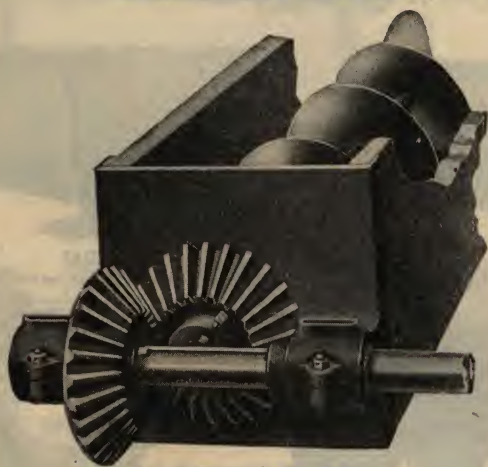


Fig. C121 with Wood Box

For use in driving conveyors that run at right angles to the driving shaft.

The outfit includes a cast iron box end with drive end projection for conveyor and gear and a short countershaft with gear and long enough outside of bearing to accommodate a sprocket wheel or pulley.

SIZES AND NET PRICES

Diameter of Conveyor	Price Each, for Either Steel or Wood Box	Diameter of Drive End	Diameter of Countershaft	Wt., Each
4	\$14.70	1	1	40
6	18.90	1½	1½	70
9	23.10	1½	1½	100
10	33.60	2	1½	135
12	37.80	2	2	195
14	52.50	2½	2	260
16	88.20	3	2½	435

USEFUL INFORMATION FOR MAKING CONVEYOR BOXES AND DIMENSIONS OF CAST IRON BOX ENDS

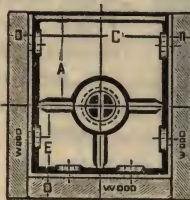


Fig. C120

Boxes should be made of kiln-dried lumber, as any shrinkage causes the Conveyor to run out of true.

Table shows proper size of Conveyor boxes.

Size of Conveyor Inch	A Inch	B Bore Inch	C Inch	D Inch	E Inch
4	3½	1	5	7/8	2½
6	4½	1½	7	7/8	3½
9	6¼	1½	10	1¼	5
10	7	2	11	1¼	5½
12	9	2	13	1¼	6½
14	9¾	2½	15	1¾	7½
16	11	3	17	1¾	8½

IMPROVED RIGHT ANGLE DRIVES

For Either Wood or Steel Box



Fig. C122 with Wood Box

An improved method of driving two conveyors at right angles to each other, one discharging into the other directly below.

Each Drive includes the castings forming the box ends and bearings also the miter gears, sprocket wheel, chain, set collar, miter gear shaft and drive end long enough for sprocket.

SIZES AND NET PRICES

Diameter of Conveyor Inches	Price Each for either Wood or Steel Box	Diameter of Drive End Inches	Diameter of Conveyor Inches	Price Each for either Wood or Steel Box	Diameter of Drive End Inches
4	\$23.75	1	12	\$59.40	2
6	28.15	1½	14	84.38	2½
9	37.50	1½	16	128.15	3
10	53.15	2			

STANDARD STEEL CONVEYOR BOXES



Fig. C123

Made of black sheet steel with Butt-Strap Joints, and heavy angle iron Top Frame. Prices are for the Box only, the necessary Box Ends, Saddles, Openings, etc., must be figured extra. When Openings are wanted state kind and where located.

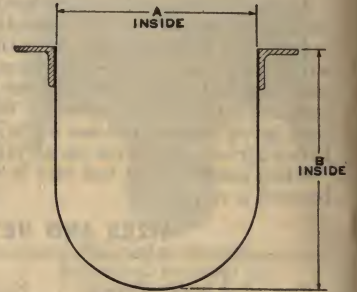


Fig. C124

SIZES AND NET PRICES

Diameter of Conveyor Inches	Box		Cover		Price per Foot With Cover	Price per Foot Without Cover	Dimensions	
	Gauge of Metal	Weight per Foot	Gauge of Metal	Weight per Foot			A Inches	B Inches
*4	18	5.8	20	1.0	\$1.60	\$1.25	5	6
6	16	9.5	18	1.7	1.95	1.50	7	8
9	14	15.4	16	2.8	2.80	2.15	10	11
10	14	16.8	16	2.9	3.10	2.45	11	11 7/8
12	12	23.6	16	3.7	4.00	3.25	13	14 1/4
14	12	27.0	16	4.4	4.80	3.95	15	16 3/4
16	12	32.0	16	4.4	5.40	4.50	17	19 1/8

*Note—Prices for 4 inch conveyor box are for 15 feet or more, for less quantity, price on application.



Fig. C125
Standard Butt Strap Joint



Fig. C126
Cast Iron Flanges without feet



Fig. C127
Cast Iron Flanges with feet



Fig. C128
Stub Discharge Spout with Slide Gate



Fig. C129
Stub Discharge Spout



Fig. C130
Plain Opening.
No Gate or Spout



Fig. C131
Standard Saddle

STEEL CONVEYOR BOX EXTRAS

SIZES AND NET PRICES

Diameter of Conveyor Inches	Plain Opening no Stub	Sheet Metal Discharges			Cast Iron Flanges		Cast Iron Saddles
		Stub without Slide	Stub with Slide	Size Square Opening Ins.	Without Feet	With Feet	
4	\$0.85	\$2.75	\$4.50	5	Prices on Application	Prices on Application	\$0.65
6	1.00	3.00	5.00	7			.95
9	1.20	3.50	5.50	10			1.60
10	1.30	3.75	6.00	11			2.00
12	1.40	4.00	6.50	13			2.55
14	1.50	4.50	7.00	15			2.95
16	1.60	5.00	7.50	17			3.20

BELT CONVEYORS

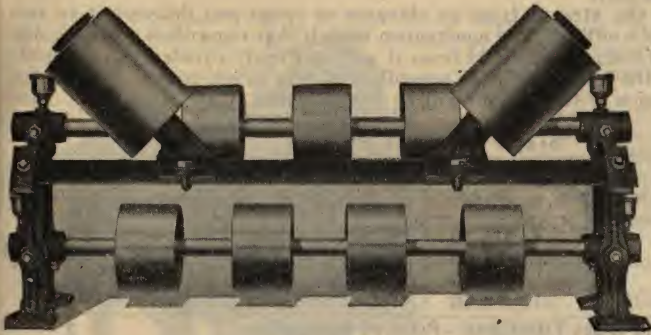


Fig. C132
Troughing Carrier with Return Roll

For handling grain, coal, ores, chemicals and kindred bulk materials; also package goods in boxes, bags or cartons a Belt Conveyor will usually give the most satisfactory service at the lowest handling cost.

The accompanying illustrations show the various types of concentrating and carrier rollers we are prepared to furnish; however the most satisfactory equipment and lowest prices can only be determined when all conditions are definitely known.

For Conveyor Belting Refer to Pages 77 and 78.



Fig. C134
Dump Troughing Roll

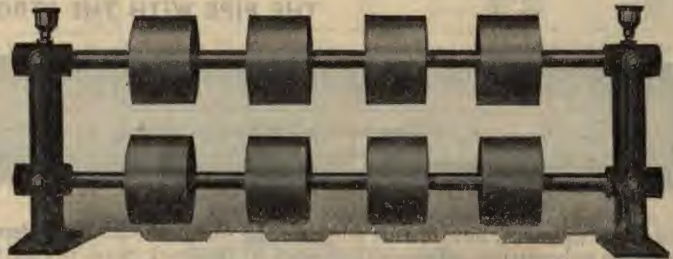


Fig. C133
Flat Belt Carrier Roll with Return Roll

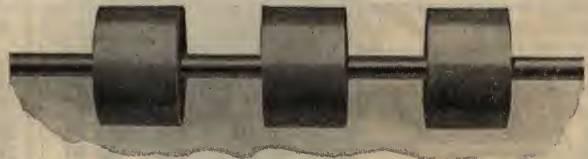


Fig. C136
Belt Conveyor Pulley Roll

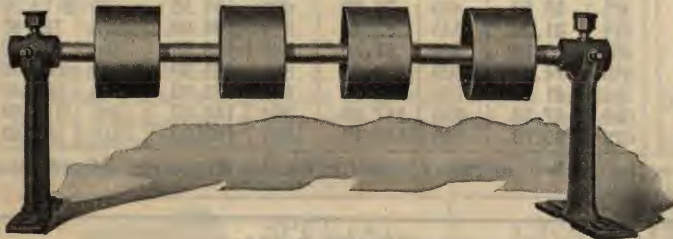


Fig. C135
Flat Belt Carrier without Return Roll



Fig. C137
Wood Rollers for Flat Belt



Fig. C138
Return Roll (may also be inverted)

When writing for prices on complete belt conveyors please give the following information:

Kind of material to be handled.

Carrying capacity required.

Distance to be conveyed.

(Center to center of end pulleys.)

Whether to operate horizontally or on incline. (If latter state rise per foot.)

Speed of drive shaft or motor.



Fig. C140
Solid Journal Box with Grease Cup



Fig. C141
Adjustable and Plain Guide Sheaves



Fig. C142

"SOPHER" STREAM SPLITTER

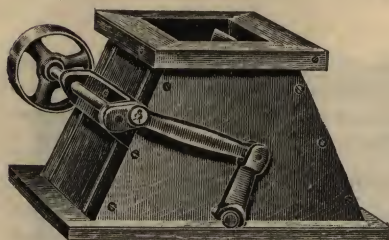


Fig. RB129

The Perfect Division of Stream Prevents Overloads, Eliminates Choke-Ups, Increases Capacity.

Evenly divides the stream from an elevator or spout and delivers it to two separate sections of a sifter. The mechanism is such that regardless of which side of the spout the stream is delivered from it will be evenly divided. A movable splitter separates the stream so that regardless of how much or how little is fed at a time the division of the stream will be even. Speed 70 to 100 R.P.M. Size pulley, 4x1 1/4".

SIZES AND NET PRICES

Size Spout—Outside	Price Each	Size Spout—Outside	Price Each
5 1/2" x 4 1/8"	\$15.30	7" x 5 5/8"	\$19.80
6" x 4 3/8"	16.20	8" x 6 1/4"	21.00
6 5/8" x 5 1/8"	17.40	10" x 6 5/8"	22.20
7" x 5 1/2"	18.60		

Larger or Smaller Sizes Furnished—Price on Application.

GALVANIZED LOCK SEAM PIPE

THE PIPE WITH THE STRONGEST SEAM



Fig. M174

We recommend Galvanized Lock Seam Pipe for any purpose where sheet metal pipe is to be used. For blowing, ventilating, surface irrigation, well casing, gravity, drainage, smoke-stacks and for use in elevators, flour mills, wood-working plants and factory equipment, it has no superior. It can be

used under pressure, but for this purpose, the seams should be soldered. The special seaming process does not in any way injure the galvanizing. To avoid damage to the Lock Seam in case of rough handling, a rivet is placed through the seam at each end of the pipe sections. **STANDARD LENGTHS** 10 foot without cross seam. This pipe will add to the efficiency of any equipment. Lugs shown attached in the illustration are furnished at extra charge.

SIZES AND NET PRICES

Size Inches	24 Gauge		22 Gauge		20 Gauge		18 Gauge		16 Gauge		14 Gauge	
	Wt. per 100 Feet	Price per 100 Feet	Wt. per 100 Feet	Price per 100 Feet	Wt. per 100 Feet	Price per 100 Feet	Wt. per 100 Feet	Price per 100 Feet	Wt. per 100 Feet	Price per 100 Feet	Wt. per 100 Feet	Price per 100 Feet
4	139	\$20.70	168	\$25.20	200	\$29.70	318	\$48.00				
5	173	25.20	204	30.90	243	35.10	453	\$71.40				
6	199	30.00	239	36.60	283	42.60	453	81.30				
7	229	34.20	278	42.00	328	49.20	545	91.50				
8	260	38.70	316	47.40	375	55.50	600	102.00				
9	288	43.20	356	52.80	414	61.80	668	111.90				
10	318	48.00	388	58.50	460	68.10	736	121.80				
11	386	52.20	457	63.90	540	74.40	815	132.00				
12	407	57.00	497	69.60	590	81.00	889	141.60				
13	440	61.20	530	75.00	630	87.30	962	150.60				
14	466	66.00	567	80.40	678	95.70	1030					

Lugs for attaching pipes together, when desired, 25c each attached, extra. We can furnish this pipe with soldered seams or with riveted seams throughout. Prices on application.

PATENTED ONE-PIECE GALVANIZED ELBOWS

Smooth on Inside—Reinforced Joints—Great Strength

These special one-piece patented elbows are used in connection with our Lock Seam pipe. Through their special construction they have added strength, due to the double thickness of metal on the laps. The elbows are entirely smooth on the inside, and there is nothing to obstruct passage. Even the slowest moving grains will pass the joints readily. There are no better elbows on the market for any purpose where sheet metal pipe is used.

SIZES AND NET PRICES EACH



Fig. M175

Diameter Inches	Inside Throat Radius Inches	45 Degree		90 Degree	
		22 Gauge	20 Gauge	22 Gauge	20 Gauge
4	8 or 4	\$0.98		\$1.35	
5	10 or 4	1.28		1.80	
6	12 or 6	1.43		2.10	
7	14 or 6	1.88		2.70	
8	16 or 6	2.33		3.38	
9	18		\$3.15		\$4.50
10	20		3.45		4.95
11	22		3.75		5.40
12	24		4.20		6.00
13	26		5.63		7.88
14	28		6.53		9.30

"BROWN-DUVEL" MOISTURE TESTER

Officially Recognized by All Grain Inspection Departments

The official "Brown-Duvel" Moisture Tester is used by all Grain Inspection Departments and is the machine by which your grain is always graded.

This is the most compact and adaptable machine offered. Made of strong non-rusting metal.

The machines for whole grains, cereals, etc., are equipped with and price includes: Full directions for operating, one gallon testing oil, one gallon alcohol, one Automatic Oil Measuring and Grain Separating device, and all necessary accessories except scale. Equipped for alcohol, gas or electric heat (110 or 220 volts). When kind of heat is not specified we always ship the machine with alcohol burners. The thermometers furnished are certified to be correct.

SIZES AND NET PRICES

Number Compartments	Width Inches	Height Inches	Length Inches	Net Price Gas or Alcohol Burners	Net Price Electric Heat
2	12 $\frac{1}{2}$	31	13	\$45.00	\$55.00
4	12 $\frac{1}{2}$	31	26	65.00	85.00
6	12 $\frac{1}{2}$	31	39	90.00	120.00

Extra for Double Wall Copper Flask and Graduate for testing flour and ground grain, net. \$7.00

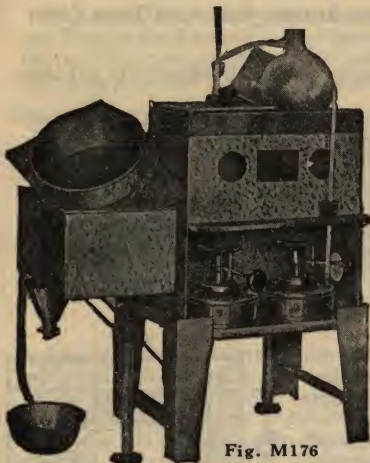


Fig. M176

Two Compartment Tester

EXPERIMENTAL SIEVES



Fig. BC111

For Flour, Middlings, Chops, Etc.,
Nickel Plated

Diameter of bottom, 6 in.; diameter of top, 7 $\frac{3}{4}$ in.; height 2 $\frac{1}{2}$ in.

The ring slips on or off to change the cloths as shown in cut.

Net Price, Experimental Sieves.
Each. \$1.50

Dufour Bolting Cloth for Above Frame

8 inch Squares

Net Prices Each

No. 0000 to 4, inclusive.	\$0.15
No. 5 to 10, inclusive. . . . .	.20
No. 11 to 14, inclusive. . . . .	.25
No. 15 to 17, inclusive. . . . .	.35
No. 18 to 25, inclusive. . . . .	.60
No. 000xx to 7xx, inclusive. . . . .	.20
No. 9xx to 10xx, inclusive. . . . .	.25
No. 11xx to 14xx, inclusive. . . . .	.35
All Nos. of Grit Gauze. . . . .	.25

Complete Outfit—Including one piece each, Dufour Bolting Cloth, 8 inches square, Nos. 0000 to 17, inclusive, complete with sieve and ring. \$5.70

We can make up any kind of an outfit to suit you.

"EMERSON" OFFICIAL ELEVATOR WHEAT TESTER AND KICKER

No. 26 Duplex—Determines the Exact Amount of Dockage in Each Sample.

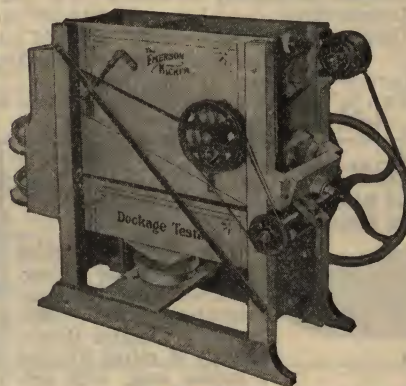


Fig. M177

This machine eliminates all guess work in determining the actual amount of dockage in each sample, saves all of the wheat and removes all of the small foul seeds and dirt.

It is used by the Department of Agriculture in its Grain Standardization Department, many Grain Inspection Departments of various states and many large mills.

DIMENSIONS: Height 34"; Length 30"; Width over-all 18".
Shipping weight—85 pounds.

Price complete—Hand driven. \$55.00 Motor driven. \$77.00
F. O. B. Factory.

SPECIAL TEST SCALE



Fig. M178

A complete scale for weighing samples for moisture test and for determining test weights per bushel, dockage, weights for mailing samples, etc. Equipped with agate bearings and brass scoop. Gives the following weights: Number of grams for dockage percentage. Number of grams for moisture test. Number of ounces for mail matter. Test weight and dockage per bushel.

Quick breaking and guaranteed to be accurate. Does the work of four scales for the price of one.

Net price, each. \$20.00

GRAIN TESTERS

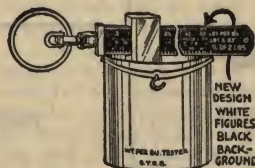


Fig. M179

Fill the cup with grain and the poise, when moved to balance, will show exactly the pounds a bushel will weigh.

To ascertain the percentage of waste, set the poise at 4 pounds and balance with grain. Then clean the grain, put the grain back into the cup, move poise to balance, and it will show on bottom row of figures the percentage of clean grain; or weigh the waste in the same manner and it will show the percentage of waste.

Net price, each, 1 qt. capacity. \$16.40

Net price, each, 2 qt. capacity. 18.00

WOOD SIEVE FRAMES

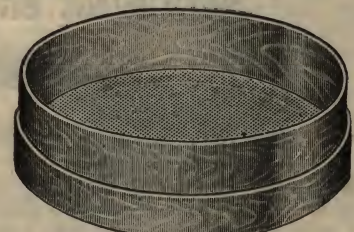


Fig. BC112

Can be fitted with any mesh wire cloth or size of hole in perforated zinc. State size desired and figure 4 sq. ft. of cloth or metal in addition to cost of frame. For prices on perforated metal and wire cloth, see index of this catalog.

Net Price of Wood Frame Only
18-inch diameter. Each, net. . . \$0.75
20-inch diameter. Each, net. . . .85
Extra when we fit metal or wire to sieve frames, Each. \$0.50

"BUG CHASER" TRUNKING BRUSHES

Help to Keep the Moths and Bugs out of Your Elevator Legging — "Bug Chaser" Trunking Brushes Will Keep Them Clean

Every elevator in the mill should be equipped with Bug Chasers.

The complete equipment for your entire line of elevators will require but a small outlay and will effectively rid them of moth and bugs or other accumulation.

Well and substantially made of Cast Aluminum, with hollow center. Tampico Bristles sewn in with copper wire and can be refilled when bristles are worn out.

They are made up only in orders and in sizes to conform with the inside measurement of the trunking, easily attached and two or more fastened to your elevator belt will keep the trunks clean and free from vermin.

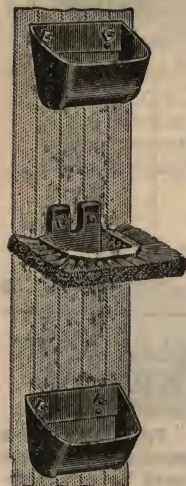


Fig. S135
Showing a "Bug Chaser" properly attached to an Elevator Belt.

The Brush-Block having an open center, permitting the material to fall through does not in any way interfere with the loading of the buckets immediately following nor with the proper handling of the material being elevated

NOTE:—"Bug Chaser" Brushes are made up to special order from the specifications given in the customer's order and if dimensions are as those given cannot be exchanged or returned.

In ordering, give these dimensions:

"A" (Width) The distance between the filler boards of the elevator leg. The line is parallel with the elevator belt and is inside measurement of the face boards.

"B" (Projection) The inside distance between the face boards of the elevator. This line is at right angles with the elevator belt and is the inside measurement of the filler boards.

SIZES AND NET PRICES

	Each	Per Doz.
Largest dimensions under 5", (not incl.)	\$1.00	\$10.80
Largest dimensions between 5" to 6" (not incl.)	1.10	11.88
Largest dimensions between 6" to 7" (not incl.)	1.25	13.50
Largest dimensions between 7" to 8" (not incl.)	1.50	16.20
Largest dimensions between 8" to 9" (not incl.)	1.75	18.90
Largest dimensions between 9" to 10" (not incl.)	2.10	22.68
Largest dimensions between 10" to 11" (not incl.)	2.75	27.90

Price per dozen is for brushes of one size only.

Largest dimension 11" and over..... Prices on application
Two 1/4" x 3/4" elevator bolts furnished with each brush.

Refilling price on inquiry.



Fig. S136

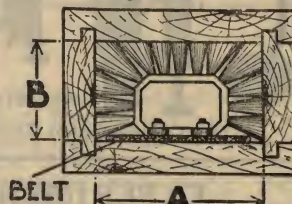


Fig. S137

BE SURE
to give us the Correct
Measurements
"A" and "B"
See Instructions
for Ordering

FLOOR BRUSHES

Polished Hardwood Blocks, Threaded Handle Holes, with Polished Handles



Fig. S138

With Mixed Bristles
"Gump's Special" Flour
Brush is made in the same
manner as our "Mill
Special" Counter Brush,
entirely of mixed bristles
4 inches long, with pol-

ished hardwood block and handle. We guarantee this brush to be as good or better than any brush at the same price and will replace them if found otherwise.

SIZES AND NET PRICES

Size 108.	"Gump's Special" 14-inch block.	Each	\$2.25
Size 110.	"Gump's Special" 16-inch block.	Each	2.60
Size 112.	"Gump's Special" 18-inch block.	Each	2.75

SCOURING BRUSH



Fig. S140

Especially suitable for brushing out the accumulation from Mill Roll corrugations and other surfaces. Made of stiff steel wire bristles, sewn into a one-piece wood handle. Brush 10" long overall; 4 rows of bristle 1 1/4" deep and 4" long. Price, Net each.....\$0.30

REEL BRUSH HOLDERS

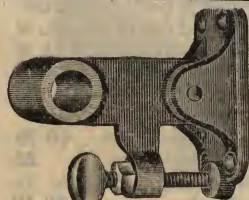


Fig. S141

Adjustable. Net Prices, Per Pair
For 3/4-inch shaft.....\$3.75
For 1/2-inch shaft..... 3.80
Price each, one-half the price of one pair.

COUNTER OR MILL BRUSHES

No. 7 Mill Special—With Mixed Bristles



Fig. S139

This is an extra high-grade brush, made of mixed horse-hair and bristles, with a highly polished hardwood handle. Bristles are three inches long. Length from base of handle to tip of brush 14 inches.

SIZES AND NET PRICES

Size 7.	Mill Special.....	Each	\$ 1.45
Size 7.	Mill Special.....	Per Doz.	15.00

MACHINE BRUSHES

Round Reel, Scalper and Bran Duster Brushes

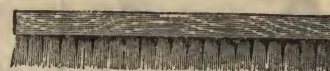


Fig. S142

We can furnish Machine Brushes of any style or size. State size of block, number of rows and length of bristles, and length of block.

NET PRICES

Standard Brushes—Three Rows of Bristles

	Per ft.
Round Reel, Horse Hair Filling.....	\$0.95
Scalper, Horse Hair Filling.....	.95
Bran Duster, Mixed Fibre, Horse Hair and Bristle Filling.....	1.00
Purifier, Horse Hair Filling.....	.95

REVOLVING ROUND AND CENTRIFUGAL REEL BRUSHES

We are able to supply brushes in any of the styles shown below with any number of rows of bristles on short notice. We can furnish the brushes in any length desired. If brushes are wanted for special work or on special machines, state the kind of work they are to be used for and send a diagram showing the dimensions of the brush if it is not possible to send an old brush as a sample and we will quote on a special brush made up in the way you desire.

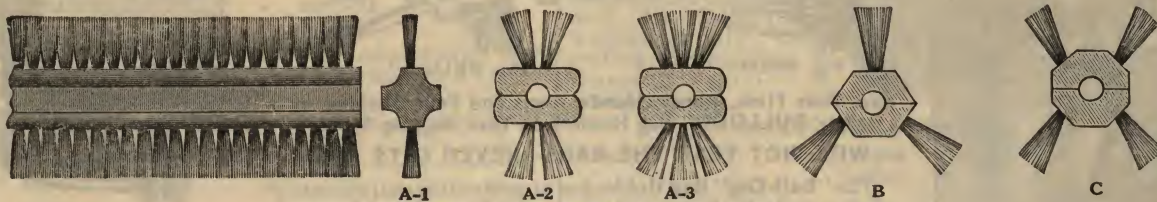


Fig. S143

The above illustrations show the different styles of brushes we can regularly furnish. We are unable to show each style with the different rows of bristles that can be furnished, although the illustrations will enable you to determine exactly how these different styles will be furnished. Style A-1 shows a brush with one row of bristles on two sides. Styles A-2 shows a brush with two rows of bristles on two sides. Style A-3 has three rows of bristles on two sides. This same style of brush can be furnished with either two or three rows of bristles on each of the three sides, as shown in styles A-2 and A-3. Style B shows a brush with one row of bristles on three sides. This style can also be furnished with two or three rows of bristles on each of the four sides if wanted. The different styles and prices shown below are for bristles not over 2½ inches in length. Where bristles are desired for wire cloth, we recommend our Basine Fibre, and will make Basine Brushes in the same styles as our Black Bristle or horse hair brushes.

NET PRICES PER FOOT FOR ROUND AND CENTRIFUGAL REEL BRUSHES

STYLE A			STYLE B			STYLE C		
Has Bristles on two Sides of the Brush			Has Bristles on Three Sides of the Brush			Has Bristles on Four Sides of the Brush		
A-1 Price One Row Bristles on Each Side	A-2 Price Two Rows Bristles on Each Side	A-3 Price Three Rows Bristles on Each Side	B-1 Price One Row Bristles on Each Side	B-2 Price Two Row Bristles on Each Side	B-3 Price Three Rows Bristles on Each Side	C-1 Price One Row Bristles on Each Side	C-2 Price Two Rows Bristles on Each Side	C-3 Price Three Rows Bristles on Each Side
Without Shaft—per ft.	Without Shaft—per ft.	Without Shaft—per ft.	Without Shaft—per ft.	Without Shaft—per ft.	Without Shaft—per ft.	Without Shaft—per ft.	Without Shaft—per ft.	Without Shaft—per ft.
Horse Hair \$1.10	Horse Hair \$1.25	Horse Hair \$1.60	Horse Hair \$1.45	Horse Hair \$1.50	Horse Hair \$1.75	Horse Hair \$1.40	Horse Hair \$1.60	Horse Hair \$1.85
Basine \$1.30	Basine \$1.80	Basine \$2.30	Basine \$1.65	Basine \$2.00	Basine \$2.50	Basine \$1.85	Basine \$2.25	Basine \$2.75

Extra for ⅝ inch Shaft in Brushes, per foot.....\$0.14 Extra for ⅝ inch Shaft in Brushes, per foot.....\$0.15

Brushes can be made for any size shaft. Be sure to mention for what size shaft when ordering. For total length of shaft add together measurements designated by "A," "B" and "C" (Fig. S144).

ROUND AND CENTRIFUGAL REEL REVOLVING SPIRAL BRUSHES

Are always in contact with the cloth. The Perfect Reel Brush
Can be furnished with any number of rows of bristles

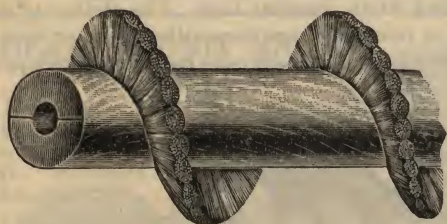


Fig. S145

These brushes are preferred by many to a brush with the rows of bristles running lengthwise of the brush, as the spiral brush is always in contact with the cloth, which is not the case with any other type of revolving brush. This brush can be used on any round or centrifugal reel for flour, sugar, cocoa or for any purpose for which a round reel may be used. Any number of rows of bristles can be furnished when desired. We make these brushes regular with one, two or three rows of bristles, but for some work, such as in reels for bolting cocoa and material of like nature, we can supply a brush with bristles over the entire surface. We can furnish any kind of brush desired for special machines. If you want a special brush send us a diagram showing the size and dimensions, or an old brush for a sample, and we will quote on a brush to suit your requirements. Brushes regular with 2½ inch hardwood stick, with 1½ inch bristles, 8 inch pitch. Use dimension diagram in ordering as shown below.

PRICES ON APPLICATION

DIAGRAM SHOWING SIZES TO GIVE IN ORDERING BRUSHES

Made up to Order—Made of Horse Hair or Basine Fibre as ordered.

"A"—Length of shaft to drive end. "B"—Length of brush "C"—Length of shaft at tail end. "D"—Width of brush. Be sure to state all dimensions when ordering. Bristles not over 2½ Long.

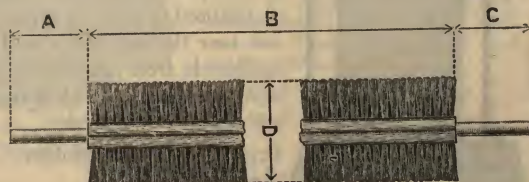


Fig. S144

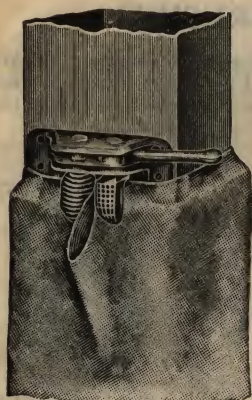


Fig. RB130
Stationary Type

"BULL DOG" BAG HOLDER FOR SQUARE AND ROUND SPOUTS



Fig. RB134



Fig. RB135

Save Your Time, Money, Hands, Arms and Your Clothing, by Using "BULLDOG" Bag Holders on Your Bagging Spouts.

WILL NOT TEAR THE BAGS—NEVER LETS GO!

The "Bull-Dog" Bag Holder has no protruding sharp points (such as nails, hooks, pins, etc., as generally used) to lacerate the operator's hands, arms and fingers and to tear his clothing. It has no protruding points to hold the bag to the spouts, which tends to tear the sack when it begins to fill.

The operator can attach a bag to a spout equipped with a "Bull Dog" Bag Holder quicker and easier than by any other

device or bag holder that has ever been devised. The regular stationary "Bull Dog" Bag Holder consists of four corner irons, a holding mechanism and a set of screws for fastening to spouts.

Made of cast iron and steel. Can be applied to your spouts in less than five minutes. For any size spout 8 inches or over.

The Special Swivel "Bull Dog" Bag Holder shown on the right has the same holding mechanism as the regular "Bull Dog" described above, but it is equipped with a cast iron frame so that the handle may be turned in any position. It is also fitted with a steel slide and when the bag is full the slide may be closed and cut off the supply of grain. A flange all around the rim of the iron frame takes the place of the four corner irons on the regular type.

The swivel type "Bull Dog" is recommended for places where it is necessary that the bags may be put on or taken off from any side of spout.

Regular Stationary Type, for attaching to wood spouts. Price net, each.....\$3.50

Regular Stationary Type for *Round Steel Spouts. Price net, each.....3.50

Special Swivel Type. Price net, each.....12.50

*Fits Round Spouts 8 to 12 and 12 to 16 inches diameter. State size.

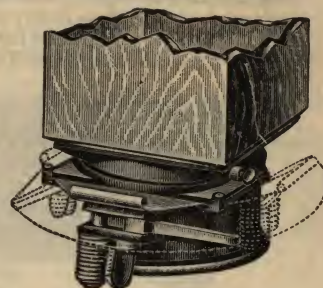


Fig. RB131
With Feed Slide
Swivel Type

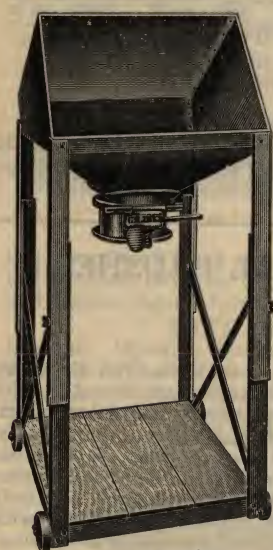


Fig. RB132

"BULL DOG" BAG FILLER

Portable for use any place about your plant

Will Handle all Kinds of Grain, Flour, Sweepings, Potatoes, Onions, Etc.

The "Bull Dog" Bag Filler meets a great need for bagging bulk materials received from cars, from bins, feeds mixed on the floor or any materials that must be shoveled into bags. With it one man can fill bags faster and with less effort than two men can when one is required to hold the bag. With one man to handle the bags they may be filled as fast as two men can shovel.

Made entirely of metal except for the wood platform, the "Bull Dog" Bag Filler is good for a lifetime of service. It has a large steel hopper that is easy to scoop into without spillage and the discharge spout is provided with a "Bull Dog" Bag Holder. A steel cut-off slide is provided so there need be no interruption in shoveling while changing bags. The Holder is on a swivel spout so it may be turned for attaching or removing bags from either front or back. The Holder is supported on heavy angle steel legs adjustable to any size bag and is equipped with four wheels for easy moving.

"Bull Dog" Bag Filler complete as illustrated, Net....\$65.00



Fig. RB133

Showing one man removing the filled bags and putting on the empty bags, while two men fill them.

"MOSHER" BAG HOLDERS

Adapted to all sizes of bags. Does not tear the bag. It is well made; malleable iron jaws, wrought iron pipe standards, steel spring, and weighs only 20 pounds.

Price, Mosher Bag Holder, each.....\$5.00



Fig. S134

SOLID ALUMINUM SCOOPS



FLOUR
Fig. S146



COFFEE
Fig. S147

They are without equal; practically indestructible and free from objections possessed by other metals.

NET PRICES

STYLE "A" Numbers.....	0	1	2	3
Length, ins.....	8½	11	12	14
Width, inches.....	3	4	5	5½
Net Price, dozen.....	\$10.90	\$16.00	\$17.10	\$23.40
Net Price, each.....	.95	1.40	1.50	2.05

STYLE "B" Numbers.....	1	1½	2	3
Length, ins.....	8½	9	9½	11
Width, inches.....	3	3½	4	4½
Net Price, dozen.....	\$8.55	\$9.12	\$10.25	\$12.00
Net Price, each.....	.75	.80	.90	1.05

RETINNED FLOUR SCOOPS

Heavy Tin
Well Made



Fig. S148

NET PRICES

Number.....	20	30	40
*Length, inches.....	6¾	8	9¾
Width, inches.....	4½	5½	6¾
Net Price, dozen.....	\$4.30	\$5.00	\$6.40
Net Price, each.....	.40	.45	.55

*Length from mouth to base of handle.

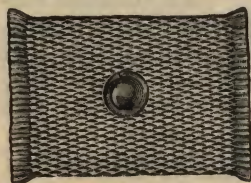


Fig. S151

CLOTH CLEANERS

For cleaning Cloth in Sieve Bolting Machines. Travels to all extremities of the sieve without wear on the cloth, which increases bolting capacity.

Price, each, net.....\$0.08

Note.—Special Price on 100 or more.

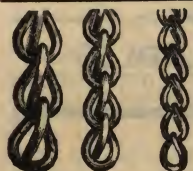
IDEAL ROUND BRUSH CLEANERS

High grade 2 inch leather discs with 3 brass spots on bottom for wire cloth and extra fine bristles on top sides for silk. Minimum wear on cloth and frames.

Price, each, net.....\$ 0.15
Price per dozen, net..... 1.50
Price per gross, net..... 15.00



Fig. S152



No. 15 No. 18 No. 20

Fig. S153

DOUBLE JACK CHAIN

For Cleaning Wire Cloth; Cuts Show Full Size of Nos. 15, 18 and 20

No. 15, per box of 12 yards.....	\$0.40
No. 16, per box of 12 yards.....	.35
No. 17, per box of 12 yards.....	.33
No. 18, per box of 12 yards.....	.31
No. 20, per box of 12 yards.....	.30

We do not sell less than a box.

CHAMPION FLOUR SCOOPS

Made of sheet Steel. Wood handle, placed in the center instead of at the end, distributes the weight evenly, thus making the handling of material easier and quicker.



Fig. S149

SIZES AND NET PRICES

Size	Length Inches	Price, Each Sheet Steel
8.....	8	\$0.90
10.....	10	1.00
12.....	12	1.20
14.....	14	1.50

HERCULES STEEL SCOOPS



Fig. S150

Our Hercules Steel Scoop is made of planished sheet steel securely riveted, strong and durable. Will outwear and is much more convenient to handle than the ordinary "D" handle scoop. Made in ½ and one bushel sizes.

NET PRICES

½ bushel, each.....	\$2.25
1 bushel.....	2.70

SACKING NEEDLES



Fig. S154

NET PRICES SOLID EYE IMPORTED

Length— Inches	Each	Per Doz.	Per Gross
3½.....	\$0.05	\$0.35	\$3.50
4.....	.05	.40	4.00
4½.....	.06	.52	5.20
5.....	.07	.64	6.40
5½.....	.08	.69	6.90
6.....	.09	.86	8.60
7.....	.10	1.05	10.50
8.....	.12	1.25	12.50

NET PRICE SPRING EYE

Curved
Lengths, 4, 4½ and
5½ inches.
Each, \$0.35; Per Doz.
\$3.50.

Straight
Lengths, 4, 4½ and
5½ inches.
Each, \$0.30; Per Doz.
\$3.00.

Furnished either straight or curved

"ELCO" SEWING AND TYING TWINE

4-Ply "Elco" Twine

Our "Elco" brand Sewing and Tying Twine is absolutely stainless. No. 1 Jute Twine, guaranteed high grade, put up in rope form, 50 and 100 pound bales, containing 50 ends, so that with one cut 50 strings may be had of lengths desired.

NET PRICES—4-PLY

In Full Bales of 100 Pounds

"Elco" Brand Twine, per pound.....\$0.24

Less than Full Bales

"Elco" Brand Twine, per pound......26



Fig. S155

HORSE SHOE MAGNETS, SINGLE

For removing wire and pieces of iron or steel of all kinds from grain before grinding.

Magnets should be placed not more than one inch from side to side, and at least two gangs should be used; if the spout is very steep three gangs will be needed.

Length, 10 inches.

Weight, 2 to 2½ pounds.

Net Price, Single Magnets, each...\$0.85



Fig. S156

FLOUR TRIERS

Spring Steel, tapered and highly polished.

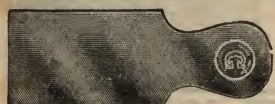


Fig. S157

	Net Each
"Gumps Special"—2½x6"	\$0.50
"Stainless Steel"—2½x6"	1.00
"Miller's Special"—2½x6¾"	.65
"Laboratory Special"—2½x7¼"	.75
"Chicago Standard"—3¼x8½"	1.00

ROUND BOTTOM GALVANIZED FIRE BUCKETS

Stenciled "Fire Bucket"

Made of Heavy Galvanized Iron. Nested, 1 dozen in bundle. The round bottoms prevent them from being used for purposes other than Fire Protection.



Fig. S158

SIZES AND NET PRICES

No.	Capacity Quarts	Size, Inches	Net Price per Dozen	Net Each
212	12	11 x 10¼	\$4.75	\$0.45
214	14	11½ x 11½	5.30	.50

HAND BELLOWS

For cleaning up around machines and various other purposes.

PRICE EACH, NET

8 inch.....	\$1.40
10 inch.....	1.75
12 inch.....	2.25



Fig. S159

COTTON WASTE

Please mention both catalog and grade number when ordering.

Bale Lots

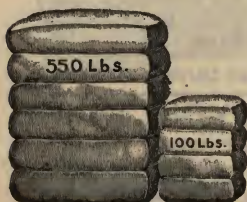


Fig. S160

Less than Bale Lots

	5 lbs.	10 lbs.
No 1 Extra White.....	\$1.00	\$2.05
No. 2 White.....	.95	2.00
No. 1 Fancy Colored.....	.95	2.00
No. 1 Regular Colored.....	.75	1.60
	25 lbs.	50 lbs.
No. 1 Extra White.....	\$5.00	\$9.50
No. 2 White.....	4.50	8.50
No. 1 Fancy Colored.....	4.25	8.00
No. 1 Regular Colored.....	3.75	7.00

GUMP'S RESPIRATOR

Protects Nose and Mouth

Has an improved automatic valve which compels a positive action in excluding dust, fumes or gases. Air filtered through fine moist sponge.

Postpaid anywhere in the United States.

Gump's Rubber Dust Protectors, net price, each.....\$1.10



Fig. S161

COVER'S RUBBER GOGGLES

The Goggles fit well with the Respirator; they are made of a single piece of pure rubber and are indestructible. The lenses are clear glass and can be removed, cleaned and replaced in a moment.



Fig. S162

Cover's Rubber Goggles, net price, per pair.....\$1.10

"MAGNOLIA" (ANTI-FRICTION) BABBITT METAL

The best anti-friction Babbitt Metal for bearings of all descriptions on High or Low

Speed Machinery, Engines, Dynamos, Motors, etc.

Note—Put up in bars of about 7 pounds each.

Price, per pound, net.....\$0.35

Special Prices on large quantities

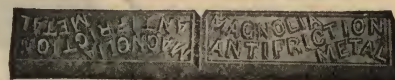


Fig. S163

ELCO BABBITT METAL



Fig. S164

For Dynamos, Motors, flour, planing and sawmills, agricultural machines, steam and gas engines.

The ingredients of "ELCO" permit its use in place of genuine metals, as the amalgamation is perfect.

Net Price, per pound.....\$0.25

Note—Made in bars weighing about 5 pounds. We do not sell less than one bar.

STANDARD BRANDS OF BABBITT

Fig. S165

No. 1—Per pound.....\$0.16 No. 4—per pound....\$0.10½

No. 2—Per pound......14½

Note—Sold only in bars of 10 pounds each.

BABBITT MELTING LADLES

These ladles are drop forged of extra heavy mild steel.

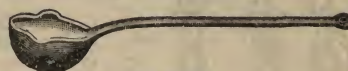


Fig. S166

Diameter Inches.....	3	3½	4	6
Price, each, net.....	\$0.40	\$0.45	\$0.50	\$1.05

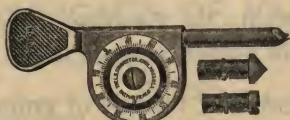


Fig. S167

"STARRETT" HIGH SPEED INDICATOR

Will run at highest speed without heating. Working parts encased. Dial plate has two rows of figures.

Net price (in pasteboard box), each.....\$1.25
Net price (in leatherette case), each..... 2.00

HAND TALLY

Used by Railroads, Telegraph and Steamboat Men, Lumbermen, Cattle-men, Head-waiters and in fact, anyone desiring an accurate count. Can be set to zero at will; very simple in construction, durable and satisfactory.

NET PRICE

No. 3, 3 dial, counts to 999, each. \$4.00

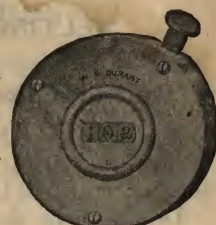


Fig. S170

"HIGGINS" CELEBRATED MILL PICKS

Guaranteed Highest Quality

For over forty years the standard Mill Pick, nothing better made. Genuine John C. Higgins' Picks, Guaranteed.

NET PRICES

Each

2 lb. Mill Picks or less in weight...\$2.50
2½ lb. Mill Picks..... 3.25
3 lb. Mill Picks..... 3.75
3½ lb. Mill Picks..... 4.50
4 lb. Mill Picks..... 5.00

Larger Picks than stated at \$1.25 lb. net.

Pick Handles, Patent Socket.....\$2.50

Plain Hickory Handles, for Eye Picks. .25

Furrow and Facing Hammers

3 pounds and under.....\$6.00

3½ or 4 pounds..... 6.50

Dressing Old Furrow or Facing Hammers 2.00

Repairing Old Picks Each

Dressing Old Picks.....\$0.75

Splicing Old Picks

Eye Picks, per weld, 2 lbs. or under...\$1.25

Cracking Picks, 2 lbs. or under..... 1.00

(Prices for Welding do not include Dressing)



Fig. S168

DURANT TALLIES

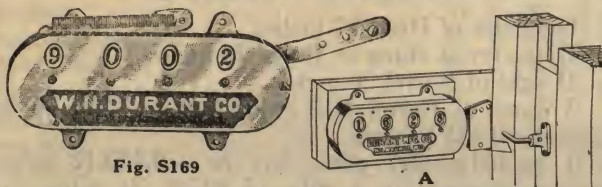


Fig. S169

These well known machines show the product at a glance, in figures that can be absolutely relied upon. Furthermore, they furnish a check against shipping errors and do away with the slow and doubtful hand count.

Complete with Lever Attachment.

No. 1, 4 dials (Counts 9,999) Net. \$7.50

No. 2, 5 dials (Counts 99,999) Net 9.00

PRESSED STEEL GREASE CUPS

With Ratchet-Lock Top

Strong and well made. Suitable anywhere where brass is not required.



Fig. S171

CAPACITY AND NET PRICES

Size	Inside Diam.	Pipe Thread	Cap., Oz.	Price, Each	Price, Doz.
1000	¾	1/8	1/4	\$0.04	\$0.45
100	1	1/8	1/2	.05	.55
10	1¼	1/4	3/8	.06	.70
11	1½	1/4	1	.07	.80
12	2	3/8	2	.11	1.20
13	2½	1/2	3½	.15	1.75
14	3	1/2	5	.21	2.40

BAG SAMPLERS

For Sampling Seeds and Grain in Sacks



Fig. S172

By means of its sharp and slender point the sampler can be thrust between the mesh of bagging, forcing it apart without tearing. They are used for sampling grain, seeds of all kinds, etc., in sacks.

For Small Seeds. Size ½-inch diam., 4¼ inches long. Net price, each, with shield.....\$0.90

For Grain. Size 5/16-inch diam., 6 inches long. Net price, each, with shield..... 1.30

For Large Grains, Coffee, Rice, etc., 9 inches long. Net price, each, without shield..... 2.00

GRAIN SAMPLERS

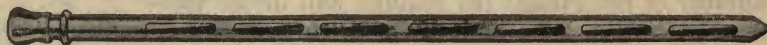


Fig. S173

Brass Tube and Brass Plunger

Made in three sizes, for cars or wagons. The grain sampler shown herewith consists of two polished brass tubes, one fitted inside the other, and having openings matching each other.

By turning the handle of the inner tube it revolves, thus opening and closing the holes. With the holes closed the sampler is thrust into the grain until it reaches the bottom of the wagon or car. The handle then being turned, the holes are opened and the sampler filled with grain. It is then

closed and withdrawn and taken from full depth of the load. The sampler is then turned on end and the sample secured.

NET PRICE

No.	Diam. Inches	Length Inches	Net Price
2	1¼	44	\$8.00
3	1½	44	9.00
4	1¾	52	10.00

BELTING RULES AND FACTS

Rule for Calculating the Power of Belting

Multiply its velocity per minute by its width and divide by 750 for single and 500 for double belts, the quotient will be the horse-power.

Double belts do not transmit twice the power of single.

Vertical belts require extra tension to obtain sufficient friction on lower pulley.

Large pulleys and high speed belts are always preferable.

Moderately long belts are preferable to short ones.

Equivalent Horse Power of Leather and Rubber Belting

Two-ply Rubber equal to Light Single Leather.

Three-ply Rubber equal to Single Standard Leather.

Four-ply Rubber equal to Short Lap Single Leather.

Five-ply Rubber equal to Light Double Leather.

Six, seven and eight-ply Rubber equal to Heavy Double Leather.

Rule for Finding Length of Belts

Add the diameter of the two pulleys together, multiply by $3\frac{1}{8}$, divide the product by 2, add to the quotient twice the difference between the center of the shafts, and the product will be the required length.

DETERMINING SIZE AND SPEED OF PULLEYS

To determine the diameter of driving pulley, multiply the diameter of driven pulley by its number of revolutions per minute, and divide this product by the number of revolutions per minute of the driver.

To determine the diameter of the driven pulley, multiply the diameter of the driver by its number of revolutions per minute, and divide this product by the number of revolutions per minute of the driven.

To determine the speed of the driver, multiply the diameter of the driven pulley by its number of revolutions per minute, and divide this product by the diameter of the driver.

To determine the speed of the driven pulley, multiply the diameter of the driving pulley by its number of revolutions per minute, and divide this product by the diameter of the driven pulley.

Speed of gearing and sprocket wheels is estimated in the same way, by substituting the number of gear or sprocket teeth for "diameter."

COMPUTING GRAIN CAPACITIES OF CONTAINERS

Capacity of Boxes, Bins, Etc.

By the United States standard, 2,150.42 cubic inches make a bushel; a cubic foot contains 1,728 cubic inches. Rule—Multiply the number of feet width of bin by the length, the result by the depth, then

multiply by 1,728 and divide by 2,150.42. The answer will be the number of bushels of grain in bin. (Struck Measure).

Example—Find the number of bushels of grain in a bin measuring 6 ft. long, $3\frac{1}{2}$ ft. wide and 7 ft. deep.

$$6 \times 3\frac{1}{2} \times 7 = 147 \text{ cu. ft.}$$

$$1,728 \text{ cu. in.} \times 147 = 254,016 \text{ cu. in. in bin.}$$

$$254,016 \text{ cu. in.} \div 2,150.42 = 118.123 \text{ bushels in bin.}$$

To compute the contents of a hopper, multiply the length by the breadth, in inches, and this product by one-third the depth, measuring to the point. Divide the last product by 2,150.42 and the quotient thus obtained will be the contents of the hopper in bushels.

To Find the Capacity of Round Bins in Bushels

When the measurements are taken in feet; multiply diameter by diameter, multiply by depth, multiply by .63.

When the measurements are taken in inches; multiply diameter by diameter, multiply by the depth, multiply by .000365.

Inside Dimensions of a Flour Barrel

Diameter of Head 17 inches.

Diameter at Bung or Bulge 20 inches.

Height of Barrel 26 inches.

Volume of Barrel 4.15 cubic feet or, 7,171 cubic inches = 3.335 bushels.

1 bushel = 1.247 cubic feet or = 2,150.42 cubic inches or equal to a cube of which its sides are 12.914 inches long.

WEIGHT AND MEASURE TABLES

U. S. Standard Dry Measure

2 pints = 1 quart = 67.20 cubic inches.

4 quarts = 1 gallon = 268.80 cubic inches.

2 gallons, or 8 quarts = 1 peck = 537.60 cubic inches.

4 pecks = 1 struck bushel = 2,150.42 cubic inches.

U. S. Standard Liquid Measure

4 gills = 1 pint = 28.875 cubic inches.

2 pints = 1 quart = 57.75 cubic inches.

4 quarts = 1 gallon = 231 cubic inches.

63 gallons = 1 hogshead.

2 hogsheads = 1 pipe or butt.

2 pipes = 1 tun.

Cubic Measure

Cubic Measure, or Solid Measure, is used to measure the volume or solid contents of regular bodies. The solid contents of irregular bodies is determined by weight.

Table

1728 cubic inches = 1 cubic foot.

27 cubic feet = 1 cubic yard.

16 cubic feet = 1 cord foot.

8 cord feet, or

128 cubic feet = 1 cord of wood.

$24\frac{3}{4}$ cubic feet = 1 perch of stone or masonry.

Cubic Contents = Length \times Breadth \times Thickness

WEIGHTS OF VARIOUS PRODUCTS PER CUBIC FOOT AND BUSHEL

This list has been compiled with care and we believe it to be approximately correct.

Product	Lbs. Per Cu. Ft.	Lbs. Per Bushel	Product	Lbs. Per Cu. Ft.	Lbs. Per Bushel
Alfalfa Meal.....	10-15	14-19	Malt.....	23-31	30-38
Alfalfa Seed.....	48	60	Malt Sprouts.....	15½	19
Baking Powder.....	56	70	Meat Scraps, ground.....	41	51¼
Barley (whole).....	38	48	Mill Run Feed, loose.....	19	23¾
Barley, fine ground.....	46	57	Millet.....	40	50
Barley, malted.....	30½	38	Mill Dust.....	11	13¾
Barley Meal.....	28	35	Milo and Kaffir Corn.....	40-45	50-56
Barley, scoured.....	41	51	Molasses, per gallon.....	11.7 lbs.	
Beans (Soya).....	46¼	57	Molasses Feed.....	20-25	25-30
Beans, white.....	43-48¼	54-60	Oats, whole.....	25	32
Beet Pulp.....	16-20	20-25	Oat Feed.....	28½	35
Blood Flour.....	30	37½	Oat Flour.....	34	42½
Blue Grass Seed.....	11	13	Oat Groats (whole).....	46½	58
Bone Meal, loose.....	49¼	61¼	Oats, ground, fine.....	30	37¼
Bone and Meat Meal, loose.....	45	56	Oats, crushed.....	22	27½
Brewers Grains.....	15½	19	Oat Hulls.....	8	10
Broom Corn Seed.....	41¾	52	Oat Hulls, ground.....	11¼	14
Buckwheat (whole).....	37-41	48-52	Oat Meal.....	45	54
Buckwheat Bran.....	15½	19	Oats, steel cut.....	30	37½
Buckwheat Flour.....	41	51	Oat Middlings.....	38	48
Buckwheat Hulls.....	13	16	Oats, rolled.....	19	23¾
Buckwheat Middlings.....	22	29	Oyster Shell, medium.....	44	55¼
Buttermilk, dried.....	31	38¾	Peanuts.....	15-19	20-24
Cane Seed.....	41	52	Peas, dried.....	48	60
Calcium Carbonate.....	75	93¾	Phosphate, ground.....	75	93
Cement, Portland, loose.....	90	112½	Pop Corn, ear.....	56	70
Charcoal, loose.....	24	30	Pop Corn, shelled.....	45	56
Charcoal, fine.....	14	18	Rape Seed.....	48¼	60
Clover Seed.....	48	60	Resin.....	69	86
Cocoa Shells.....	30	37	Rice Bran.....	21	26
Coffee, roasted bean.....	26	33	Rice, clean.....	48¼	60
Copra Meal, loose.....	27	33½	Rice, hulls.....	20½	25
Corn (shelled).....	45	56	Rice, polish.....	30	38
Corn Bran.....	13	16	Rice, rough.....	32¼	40
Corn, cracked coarse.....	40	50	Rye (whole).....	45	56
Corn, ear.....	56	70	Rye Bran.....	15-20	19-25
Corn, cracked medium.....	38	48	Rye, feed.....	33	41
Corn Feed Meal.....	33½	41¾	Rye, malted.....	32¼	40
Corn Meal.....	38-40	48-50	Rye, middlings.....	42	51
Corn and Cob Meal.....	35½	44	Rye, meal.....	40	50
Corn and Oat Chop.....	17¼	22	Rye Shorts.....	33½	41
Corn Sugar.....	20½	25½	Salt.....	70	87
Cottonseed.....	22-27	28-33	Sand, dry loose.....	106	132½
Cottonseed Cake, cracked.....	41	49	Sorghum Seed.....	32¼	40
Cottonseed Hulls.....	12	15	Speltz.....	32-38	40-48
Cottonseed Meal.....	38	48	Starch, corn.....	77	96
Cow Peas.....	45	56	Sugar.....	100	124
Dairy Feed, light.....	18-22	24-28	Sulphur.....	125	156
Dairy Feed, heavy.....	20-28	27-35	Sunflower Seed.....	38½	48
Distillers Grains.....	18	22	Tankage.....	41	51¼
Flax Feed.....	20½	25½	Timothy Seed.....	36¼	45
Flaxseed.....	43½	54	Vetch.....	52	65
Flax Screenings.....	27¼	34	Wheat, whole.....	48	60
Germ Oil Meal.....	35½	44	Wheat, bran.....	11-15	14-20
Gluten Feed.....	33	41	Wheat, cracked.....	35	44¼
Gluten Meal.....	43¾	54	Wheat, flour, loose.....	31	38½
Grit.....	86	107½	Wheat, flour, red dog.....	28	35
Hempseed.....	35¼	44	Wheat, ground fine.....	38½	48
Hominy Feed.....	27¼	34	Wheat, middlings, coarse.....	30	38
Hominy Meal.....	44¼	55	Wheat, middlings, standard.....	20	25
Kaffir Corn and Milo.....	40-45	50-56	Wheat, screenings.....	17-25	22-35
Linseed Meal, old process.....	27¼	34	Wheat, shorts.....	15	20
Linseed Meal, new process.....	23	28¾			

GENERAL INDEX

	Page		Page		Page
A Agitator, Draver Bin.....	17	Box Ends, Countershaft	113	Conveyor Box Discharge	114
Angle Clamp Boxes.....	97	Boxes, Angle Clamp	97	Conveyor Box Ends	112
Angle Irons	108	Boxes, Ball Bearing Replace....	95	Conveyor Box Flanges	114
Aspirators, Centrifugal	44	Boxes, Double Post	99	Conveyor Box Saddles	114
Attachment Links, Chain.....	89	Boxes, Roll	67	Conveyor Boxes, Steel	114
Augers, Packer	98	Boxes, Steel Conveyor	114	Conveyor Boxes, Wood	113
Automatic Scales, Richardson, 41,	42	Boxes, Take-up	99	Conveyor Countershaft Box Ends.	113
Automatic Weighers.....	62 to 65	Boxes, Wood Conveyor	113	Conveyor Couplings	111
B Babbitt Ladle	122	Brace with Socket.....	108	Conveyor Drive Ends	111
Babbitt Metal	122	Bracket Hangers	96	Conveyor, Feed Mixing	19, 21
Bag Closing Machines	40	Bran Duster Wire	72	Conveyor Flight Supports.....	111
Bag Holders	120	Bran Packer	54	Conveyor Flights, Steel.....	111
Bag Samplers	123	Brass Wire Cloth	71	Conveyor Flights, Wood.....	108
Bag Trucks	61	Brown-Duvel Moisture Tester....	117	Conveyor Hangers	112
Bagging Scales.....	41, 42	Brush Clips, Roll.....	69	Conveyor Lining	111
Balata Belt	77	Brush, Glue	80	Conveyor Right Angle Drive....	113
Ball Bearing Drop Hangers	94	Brush Holder, Reel.....	118	Conveyor, Spiral Steel	110, 111
Ball Bearing Pillow Blocks	95	Brush, Scouring Wire.....	118	Conveyors, Belt	115
Ball Bearing Post Hangers	95	Brushes, Bug Chaser Trunking...118		Corn Cleaner	55
Ball Bearing Replace Boxes	95	Brushes, Counter	118	Corn Crackers and Graders....	28, 29
Bar-Nun Grinders	32 to 35	Brushes, Floor	118	Corn Crushers	55, 56
Barrel Elevator	100	Brushes, Machine	118	Corn Degerminator	53
Batch Feed Mixing Unit.....	50	Brushes, Reel	119	Corn Drag	58
Batch Mixers	50, 51	Brushes, Roller Mill	69	Corn Scourer	52
Belt Cement	79	Bushings, Wood	88	Corn Shellers	57
Belt Clamp	80	Buckets and Belting, Elevator...105		Corn Meal Bolters	36
Belt Conveyors	115	Buckets, Elevator	106, 107	Corn Steamer	53
Belt Couplings	79	Buckets, Fire	122	Corrugating, Roll	66, 67
Belt Fasteners	81, 82	Buckwheat Scourer	52	Corrugation, LePage Patent....	26
Belt Dressing	79	Bug Chaser Trunking Brushes....118		Cotton Belt	78
Belt Hooks	81, 82	Bull Dog Bag Filler.....	120	Cotton Waste	122
Belt Idlers	48, 97, 98	Bull Dog Bag Holder.....	120	Counter Brushes	118
Belt Lacers, Clipper	81	C Canvas Belt	78	Countershaft Conveyor Box Ends.	113
Belt Lacing	81, 82	Car Mover	60	Couplings, Belt	79
Belt Paint	79	Car Puller Hooks.....	60	Couplings, Compression	92, 93
Belt Punches	80, 108	Car Puller, Power.....	60	Couplings, Conveyor	111
Belt Tighteners	98	Casén Grinder	27	Couplings, Flange	93
Belts, Endless	78	Cast Iron Pulleys.....	83 to 85	Couplings, Friction Clutch	86
Belts, Thresher	78	Cement, Belt	79	Couplings, Jaw Clutch	93
Belting and Buckets, Elevator...105		Cement, Pulley Covering	80	Couplings, Sleeve	92
Belting, Balata	77	Centrifugal Aspirators	44	Cracked Corn Grader	49
Belting, Canvas	78	Centrifugal Reels	37	Cracked Corn Polishers	30
Belting, Cotton	78	Chain Conveyor and Feeder....	58	Crackers, Corn	28, 29
Belting, Elevator	77, 78	Chain, Jack	121	Crushers, Corn and Cob.....	55, 56
Belting, Leather	76, 79	Chain, Link Belting	89	Cups, Elevator	106, 107
Belting, Link Chain	89	Chain, Roller	91	Cups, Grease	123
Belting, Rubber	77	Chain Tighteners	98		
Belting, Waterproof	76, 78	Champion Flour Scoops.....	121	D Dairy Feed Plants....	21, 23, 24
Bearings, Elevator Boot	108	Chemical Feeder	15	Degerminators, Corn	53
Bearings, Elevator Head ...	102, 108	Clamp, Belt	80	Diagrams, Roll	68
Bearings, Rosette	93	Clamp Boxes, Angle.....	97	Discharges, Steel Conveyor Box..114	
Bellows	122	Clark Power Grain Shovel.....	59	Distributing Spouts, Grain.....	109
Blocks, Adjustable Pillow	96	Cleaner, Corn	55	Double Swivel Post Boxes.....	99
Blocks, Rigid Pillow	93	Cleaners, Cloth	121	Drag, Corn and Grain.....	58
Blower, Electric	53	Clements-Cadillac Blower	53	Draver Bin Agitator	17
Blowers, Buffalo	45	Clipper Belt Hooks.....	81	Draver Eccentric Drive	12
Bolters, Corn Meal	36	Clipper Belt Lacer.....	81	Draver Feeders—Conv. Type...14, 15	
Bolting Cloth Webbing	70	Clips, Roll Brush.....	69	Draver Feeders—Wing Type..4 to 11	
Bolting Cloth, Wire	71, 72	Cloth Cleaners	121	Draver Master Drive.....	2, 3, 13
Bolting Silk	70	Cloth Stretching Pliers.....	72	Draver Molasses Feeder	18
Bolts, Elevator	108	Cogs, Wood Gear.....	97	Draver Variable Speed Drive....	16
Boot Bearings	108	Collars, Set	92	Dressing, Belt	79
Boots, Elevator	103, 104	Collectors, Dust	36, 44	Dressing, Mill Pick	123
Box Ends, Conveyor	112	Compression Couplings	92, 93	Dressing, Roll	66, 67

GENERAL INDEX—Continued

	Page		Page
Drive, Draver Eccentric	12	Indicator Ring	109
Drive, Master	2, 3, 13	Indicator Rod	109
Drive, Juby	48	Indicator, Speed	123
Drive, Right Angle Conveyor.....	113	Indicator Stand	109
Drives, Variable Speed.....	16	Information, Useful	124
Drop Hangers, Adj. Babbitted....	96	Internal Spur Gears.....	99
Drop Hangers, Ball Bearing	94	Irons, Angle	108
Dryer, Cutler	52	J Jack Chain	121
DuFour Silk	70	J Jaw Clutch Couplings.....	93
Dump, Overhead Wagon.....	59	Juby Applications.....	28, 36, 48, 49
Duplex Weighers	62 to 65	Juby Drive	48
Durant Tallies	123	K Kenyon Corn Crushers.....	56
Dust Collectors	36, 44	Kettle, Molasses Heating...	20
E Ear Corn Buckets	106	Keyseating	92
E Ear Corn Drag	58	L Lace Leather Sides.....	82
Edtbauer Duplex Weighers.....	62 to 65	Lacers, Belt	81
Elbows, Galvanized	116	Lacing, Belt	81, 82
Electric Blower	53	Ladle, Babbitt	122
Electric Generators	46	Lead Sheaves	60
Electro Magnetic Separators.....	46, 47	Leather Belt	76, 79
Elevator Belting	77, 78	Leather Belting, Round	79
Elevator Belting and Buckets....	105	Leather, Lace	82
Elevator Bolts	108	Leather Pulley Covering	80
Elevator Boot Bearings	108	Leather Washers	108
Elevator Boots	103, 104	Legging, Elevator	104
Elevator Buckets	106, 107	LePage Patent Corrugation.....	26
Elevator Head Bearings.....	102, 108	LePage's Glue	79
Elevator Head Shafts	102	Lining, Conveyor Box.....	111
Elevator Heads	103	Link Belting	89
Elevator Legging	104	Links, Chain Attachment.....	89
Elevator, Passenger	58	Loading Spout, Flexible.....	109
Elevator Trunking	104	M Machine Brushes	118
Elevators, Ball Bearing	100	Magnetic Hammer, Tack...	72
Elevators, Barrel	100	Magnetic Separators	46, 47
Elevators, Galvanized Iron.....	100, 101	Magnets, Electro Spout	47
Elevators, Wood	102	Magnets, Horse Shoe.....	122
Emerson Tester and Kicker.....	117	Making Up Bolting Cloths....	70, 71
Endless Belts	78	Malleable Iron Buckets.....	106
Ends, Conveyor Box	112, 113	Mallets, Rubber	108
Ends, Conveyor Drive	111	Manlift Elevator	58
Excel Corn and Cob Crusher.....	56	Mash and Dairy Feed Finisher...	31
Exhaust Fans	45	Mash Feed Plants.....	23, 24
F Fans	45	Meal Dryer	52
Fasteners, Belt	79	Metal, Babbitt	122
Feed Finishers, Mash and Dairy..	31	Metal, Perforated	73
Feed Grinder, Bar-Nun	32, 35	Meter, Molasses	20
Feed Grinder, Peerless	55	Mill Picks	123
Feed Mixers, Continuous	19, 21	Mill Rolls, Chilled Iron.....	68
Feed Mixing Conveyor	19, 21	Mill Scales, Automatic	41
Feed Mixing Unit, Batch	50	Mill Shellers	57
Feed Packer, Auger Type	54	Mills, Hammer	32 to 35
Feed Packer, Vibrox	38, 39	Mills, Peerless Feed	55
Feed Plants, Dairy or Mash.....	23, 24	Mills, Roller	27
Feed Plants, Molasses	18, 21, 22	Minneapolis "V" Buckets.....	106
Feed Plants, Scratch	24, 25	Mixer, Feeder and.....	74
Feed Screens	30, 36	Mixers, Batch	50, 51, 74, 75
Feeder and Mixer	74	Mixers, Continuous Feed	19, 21
Feeder, Chain Conveyor	58	Moisture Tester	117
Feeder, Draver Chemical	15	Molasses Feed Mixers	19, 21
Feeder, Draver Molasses	18	Molasses Feed Plants	18, 21, 22
Feeders, Draver Conv. Type....	14, 15	Molasses Feed Scales	42
Feeders, Draver Wing Type....	4 to 11	Molasses Feeder	18
Filler, "Bull Dog" Bag.....	120	Molasses Heating Kettle	20
Fire Buckets	122		
Flange Couplings	93		
Flight Supports, Conveyor.....	111		
Flanges, Conveyor Box.....	114		
Flights, Steel Conveyor	111		
Flights, Wood Conveyor	108		
Floor Brushes	118		
Floor Stubs	101		
Flour Packer	54		
Flour Triers	122		
Frames, Roll Brush.....	69		
Friction Clutch Couplings.....	86		
Friction Clutch Pulleys.....	85, 86		
G "Gardner's" Rapid Sifter. 74			
"Gardner's" Sifter and			
Mixer	74, 75		
Gears	69, 98, 99		
Gears, Bevel Reel	99		
Gears, Internal	99		
Gears, Packer	98		
Gears, Roller Mill	69		
Generators, Electric	46		
Glue Brush	80		
Glue, LePage's	79		
Glue Pots	80		
Goggles	122		
Grader, Cracked Corn.....	49		
Grain Distributing Spouts	109		
Grain Samplers	123		
Grain Scales, Automatic	41		
Grain Shovel	59		
Grain Testers	117		
Grease Cups	123		
Grinders, Casein	27		
Grinders, Bar-Nun	32 to 35		
Grinding and Corrugating, Roll, 66, 67			
Grits Gauze	70		
H Hammer, Magnetic Tack ... 72			
Hammer Mills	32 to 35		
Hammers, Facing and Furrowing, 123			
Hangers, Adj. Babbitted Drop... 96			
Hangers, Adjustable Post ... 96, 97			
Hangers, Ball Bearing Drop..... 94			
Hangers, Ball Bearing Post..... 95			
Hangers, Bracket	96		
Hangers, Conveyor	112		
Hangers, Double Post	99		
Hangers, Rigid Post	97		
Heads, Elevator	103		
Heads, Turn	109		
"Hercules" Steel Scoop.....	121		
Hexagon Reels	37		
Holder, Loading Spout	101		
Holder, Reel Brush	118		
Holders, Bag	120		
Hominy Polisher	52		
Hooks, Belt	81, 82		
Hooks, Car Puller	60		
Hopper and Turn Head	109		
Hopper Scales	42		
Horizontal Batch Mixer.....	51		
Horse Power of Shafting.....	92		
Horse Shoe Magnets	122		
Huller, Oat	44		
I Idlers, Belt	97, 98		
Indian Tanned Lacing.....	82		

GENERAL INDEX—Continued

	Page		Page		Page
Molasses Meter	20	Roll Grinding and Corru.....	66, 67	Sleeve Couplings	92
Molasses Pump	20	Roll Scrapers	69	Stag Belt Hooks	82
Molasses Spreader	18	Roll Truck	69	Stand, Indicator	109
Mosher Bag Holder.....	120	Rolls, Mill	68	Steamer, Corn	53
Motor Generating Sets.....	46	Roller Chain	91	Steel, Perforated Sheet	73
Mover, Car	60	Roller Mill Gearing	69	Steel Shafting	92
N Needles, Sacking	121	Roller Mills	27	Steel Split Pulleys	87
N Norwood Corn Sheller.....	57	Rollers, Belt Conveyor.....	115	Stream Splitter	116
O Oat Huller	44	Rosette Bearings	93	Stubs, Floor	101
O Overhead Wagon Dump....	59	Round Reels	37	Superior Elevator Cups.....	107
P Packer Gears	98	Rubber Belt	77	Swivel Grain Spout.....	109
P Packer Tubes and Augers... 98		Rubber Mallets	108		
Packers, Auger Type	54	Rye Scourer	52	T Tack Hammer, Magnetic....	72
Packers, Vibrating	38, 39, 65	S Sack Packer	54	T Take-up Boxes	99
Packers, Vibrox	38, 39	S Sacking Needles	121	Tallies, Durant	123
Paint, Belt	79	Saddle, Steel Conveyor Box.....	114	Tally, Hand	123
Paper Pulleys	82	Salem Steel Buckets.....	106	Test Scale	117
Passenger Elevator	58	Samplers, Bag and Grain.....	123	Tester and Kicker, "Emerson".	117
Perforated Metal	73	Scale, Test	117	Tester, Moisture	117
Pillow Blocks, Adjustable	96	Scales, Dormant Hopper	42	Testers, Grain	117
Pillow Blocks, Ball Bearing....	95	Scales, Edtbauer-Duplex	62, 65	Testing Sieves	117
Pillow Blocks, Rigid	93	Scales, Molasses Feed	42	Trap, Sediment	20
Picks, Mill	123	Scales, Platform	43	Thresher Belts	78
Pins, Rawhide and Fibro.....	81	Scales, Richardson Automatic, 41,	42	Tighteners, Belt	98
Pipe, Galvanized	116	Scalping Shoe	30, 36	Tighteners, Chain	98
Plates, Tram	69	Scoop Truck	61	Triers, Flour	122
Platform Scales	43	Scoops	121	Tram Plates	69
Platform Truck	61	Scourer, Grain	52	Triumph Corn Sheller.....	57
Pliers, Cloth Stretching.....	72	Scouring Brush	118	Truck, Roll	69
Polishers, Cracked Corn.....	30	Scrapers, Roll	69	Truck, Scoop	61
Polisher, Hominy	52	Scratch Feed Plants.....	24, 25	Trucks, Bag	61
Post Hangers, Adjustable	96, 97	Screens, Feed	30, 36	Trucks, Grain	61
Post Hangers, Ball Bearing	95	Sediment Trap	20	Trucks, Platform	61
Post Hangers, Rigid	97	Separator, Cracked Corn.....	49	Trunking, Elevator	104
Pots, Glue	80	Separators, Magnetic	46, 47	Tubes, Packer	98
Puller, Power Car.....	60	Separators, Receiving	49	Turn Heads	109
Pulley Covering, Cement	80	Set Collars	92	Twine, Sewing	121
Pulley Covering, Leather	80	Sewing Machines, Bag Closing... 40			
Pulleys, Cast Iron	83 to 85	Sewing Twine	121	V Vertical Batch Mixer.....	50
Pulleys, Friction Clutch	85, 86	Shafting, Cold Rolled	92	V Vibrating Packers.....	38, 39, 65
Pulleys, Paper	82	Shafting, Elevator Head	102	Vibrox Packers	38, 39
Pulleys, Steel Split	87	Shafting, Horse Power of.....	92	Volume Fans	45
Pulleys, Wood Split	88	Sheaves, Lead	60		
Pump, Rotary Molasses.....	20	Shellers, Corn	57	W Wagon Dump	69
Punch, Belt	80, 108	Shoes, Scalping	30, 36	W Warehouse Scales	43
Punches, Drive	108	Shovel, Grain	59	Washers, Leather	108
R Rawhide Lacing	82	Sieve Frames (Riddles).....	117	Waste, Cotton	122
R Rawhide Pins	81	Sieves, Experimental	117	Waterproof Belt Cement	79
Receiving Separators	49	Sifter and Mixer, Gardner's, 74, 75		Waterproof Cotton Belt	78
Reel Brushes	119	Sifter Cloth Cleaners	121	Waterproof Leather Belt	76
Reel Cloths	70, 71, 72	Sifter Clothes	70, 71, 72	Weighers, Edtbauer Duplex, 62 to 65	
Reel Gears	99	Sifter, Gardner's Rapid	74	Weighing and Packing Unit....	65
Reels	37	Silk Bolting Cloth.....	70	Weights and Measures	124
Respirators	122	Socket and Brace	108	Weights, Various Products	125
Reynolds Truck	61	Socket Wrench	108	Western Mill Sheller.....	57
Riddle, Wood	117	Speed Indicator	123	Wheat Scourer	52
Ring, Indicator	109	Splitter, Stream	116	Wheels, Sprocket	90, 91
Rod, Indicator	109	Spout Magnets, Electro.....	47	Wire Belt Lacing	81
Roll Boxes	67	Spreader, Molasses	18	Wire Bolting Cloth	71, 72
Roll Brush Clips	69	Spout, Flexible Loading.....	109	Wire, Bran Duster	72
Roll Brush Frames	69	Spout Holder	101	Wood Bushings	88
Roll Brushes	69	Spouts, Grain Distributing.....	109	Wood Gear Cogs	97
Roll Diagrams	68	Spouting, Galvanized Iron.....	116	Wood Split Pulleys	88
		Spouting, Wood	104	Wrench, Socket	108
		Sprocket Chain	89		
		Sprocket Wheels	90, 91	Z Zinc, Perforated Sheet.....	73

LOOK FOR THE ROUND SEAL It Is Your Protection

Genuine "LePage" Patent Corrugation



"LePage"
Patent Cut
For Fast Roll
(Lengthwise
Cut)

"LePage" Patent Cut
For Slow Roll
(Ring-around or Helical Cut)

Both Rolls in
Contact with
Grain, Showing
Method of Cut-
ting Without
Crushing by the
Use of the "U"
Shaped Groove.

Patent Guarantee Trade Mark

Experienced millers readily recognize the characteristic features of the "LePage" cut and are not deceived by inferior imitations, but to make that assurance doubly sure, permanently attached to the end of one journal of each roll is a red and black brass seal bearing a serial number and Patent Date which is your protection against imitation cuts.



Originators and Sole Owners
OF THE
Genuine LePage Patent Corrugation



Digitized by



ASSOCIATION
FOR
PRESERVATION
TECHNOLOGY,
INTERNATIONAL
www.apti.org

BUILDING
TECHNOLOGY
HERITAGE
LIBRARY

<https://archive.org/details/buildingtechnologyheritagelibrary>

From the collection of:

Alan O'Bright